NAS 3000

4-bay User Guide

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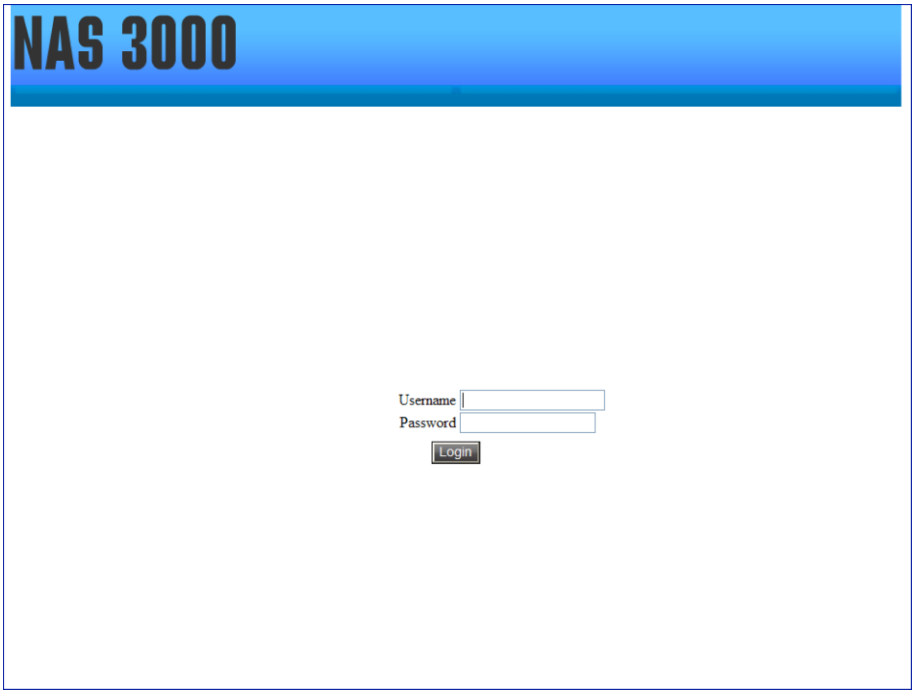
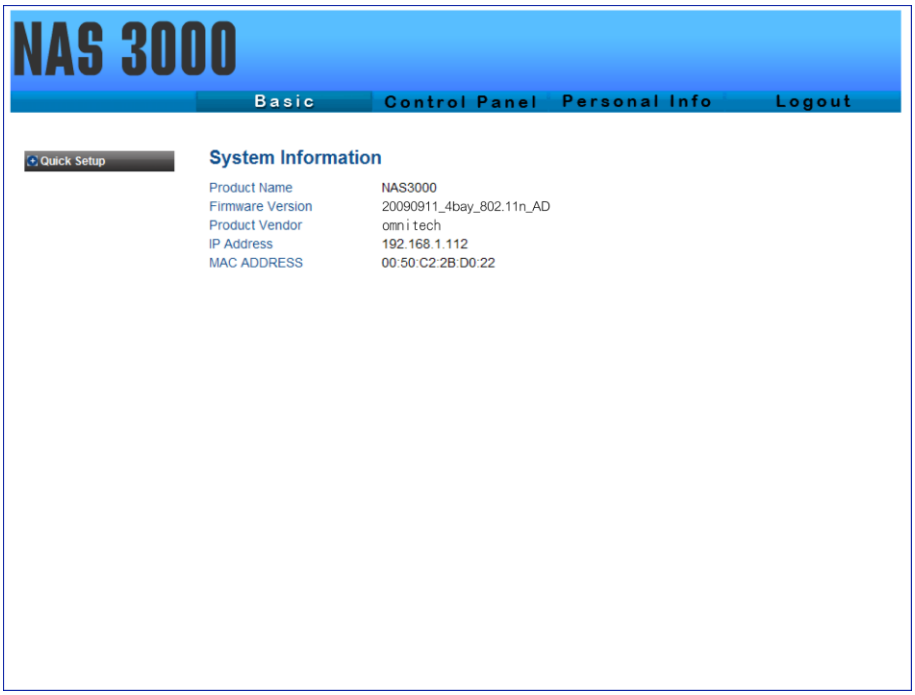
Appendix (Important Operation Information)

LOG IN



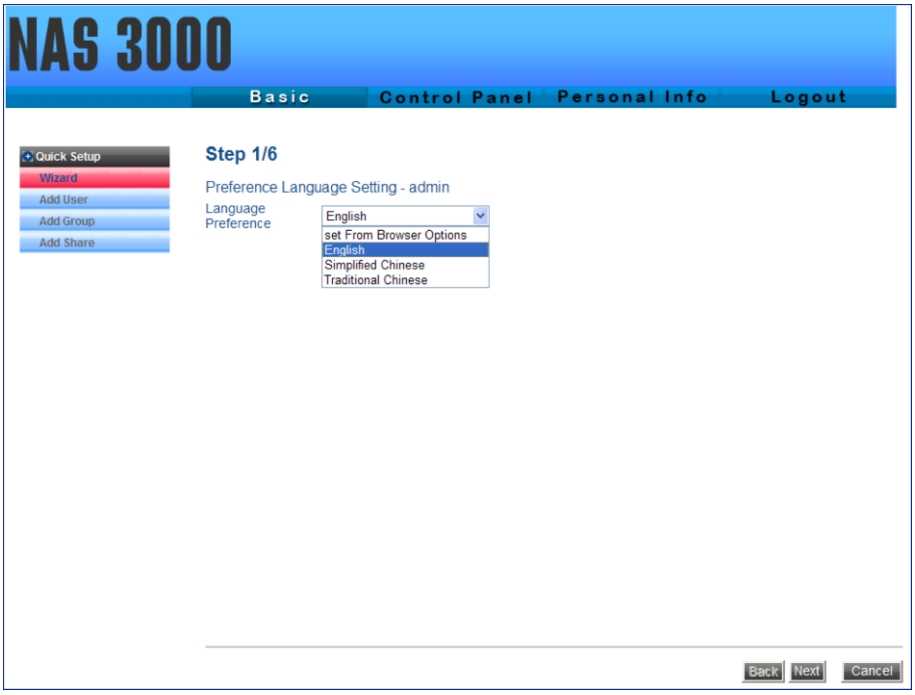
Please refer to the IP address shown on the NAS Chassis's front LCD panel, launch your web browser, and type the address: http://xxx.xxx.xxx.xxx.

In most cases, the user will see http://192.168.1.xxx (xxx being the IP address assigned to this device). The main log-in screen will pop-up.



For the first time log-in, the default user name and password are both "admin".

WIZARD

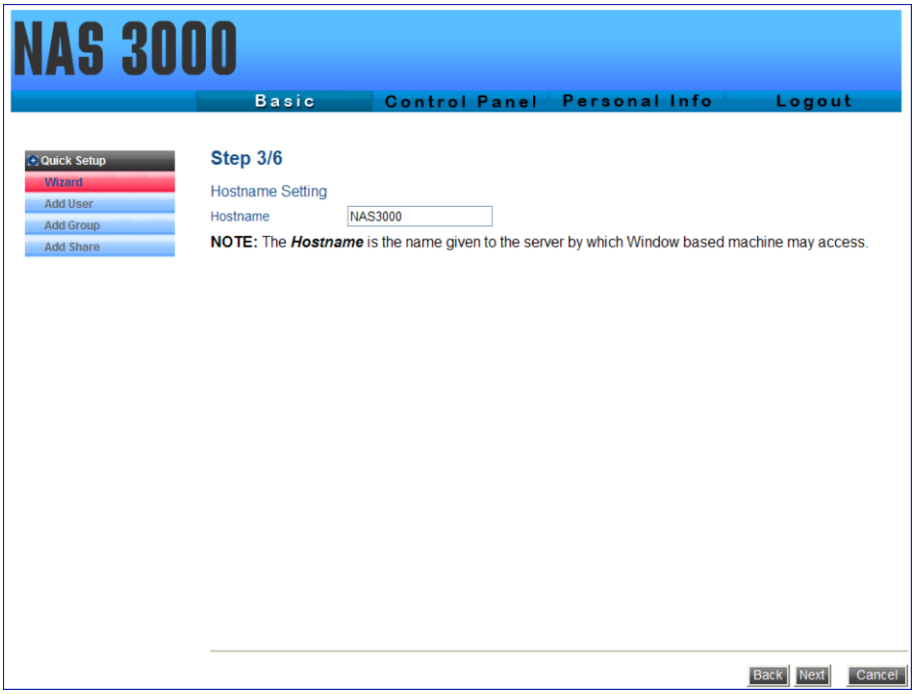


Step 1 of 6

Please make sure you have at least one hard disk installed. ALL DATA ON HARD DRIVE WILL BE ERASED! Follow the 6-step setup wizard by clicking “Next”.

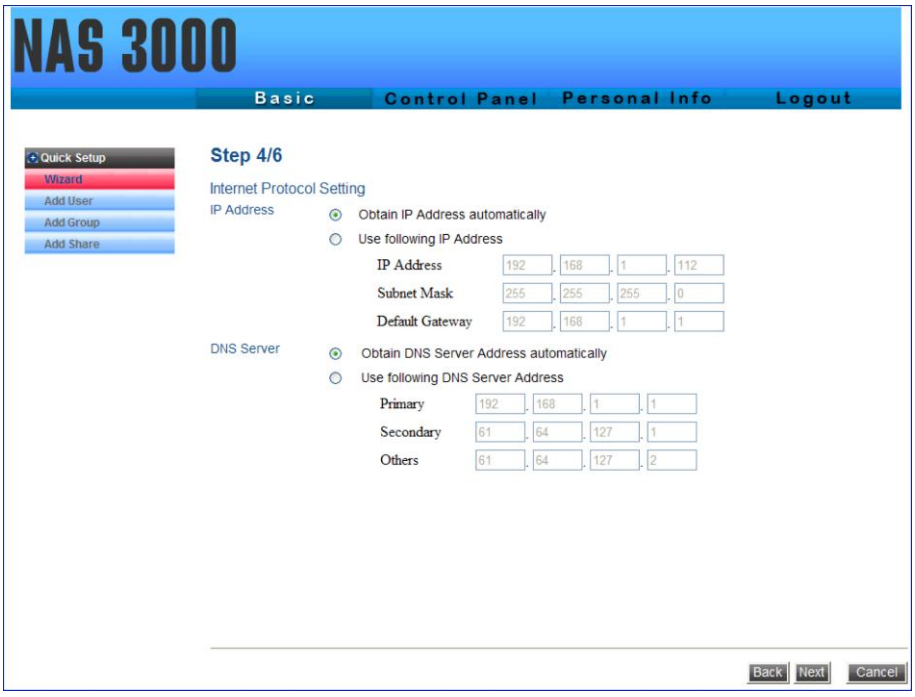
Step 2 of 6

Set new password for the administrator, it is highly recommended for users to change and use a distinct password. Remember this password for future log-in.



Step 3 of 6

Set up host name of your choice

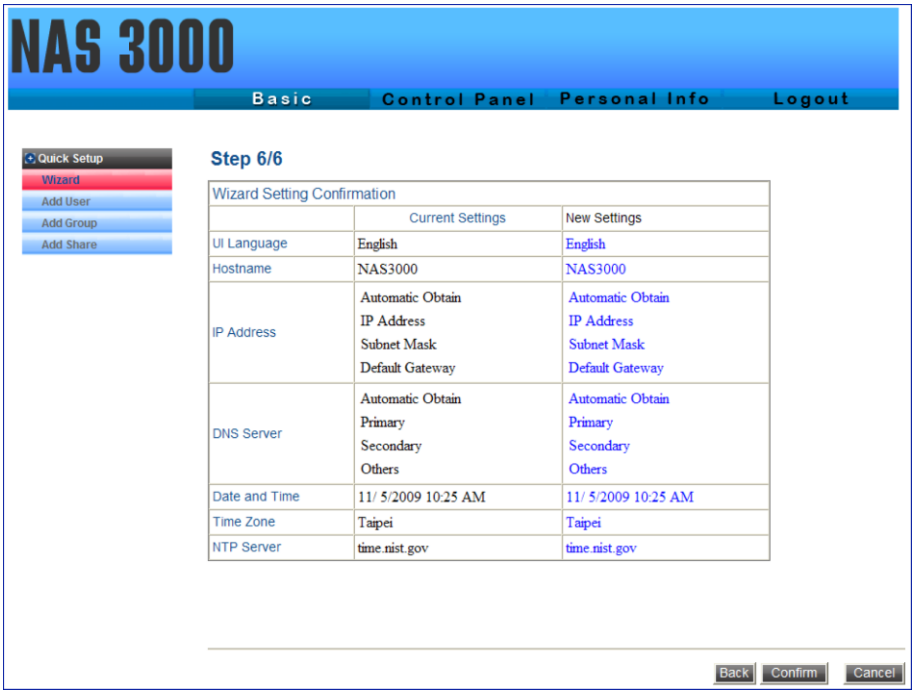


Step 4 of 6

For users with a router setup and DNS server turned on, both settings can be set "Automatically". In this case, each time the system boots, an IP address will be assigned to the system depending on the IP availability. For some users who prefer a fixed IP, just type in the IP address for this machine (make sure the IP address does not conflict with other devices in the same network system). The DNS server can be set "Automatically" or usually to the router IP address.

Step 5 of 6

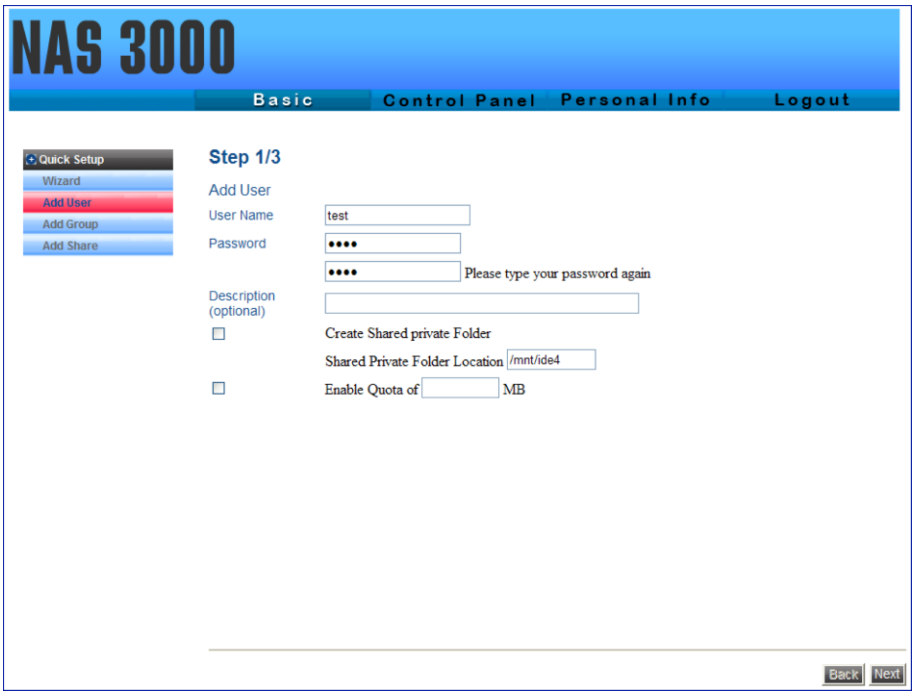
You can set up the time manually or get it from the internet. If you would like to get the time information from the internet, please specify the server of your choice.



Step 6 of 6

This is a summary page of all of the information you have just chosen. Just click “Complete” to finish the Wizard, or “Back” if you want to change anything.

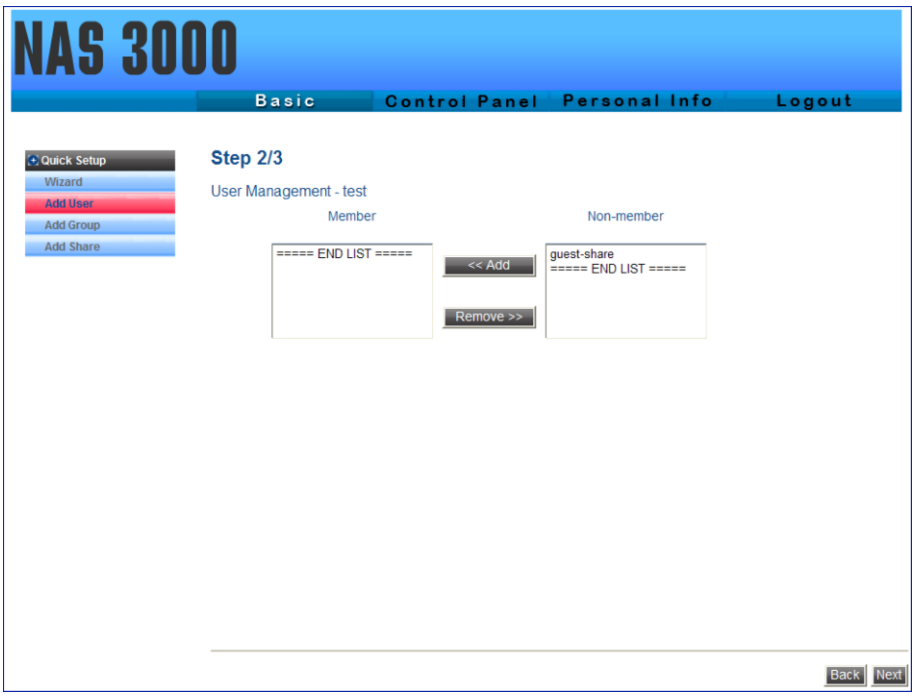
ADD USER



This is the 3-step sub-menu in the Wizard to add users. After the users are added, users can access the files stored in the device.

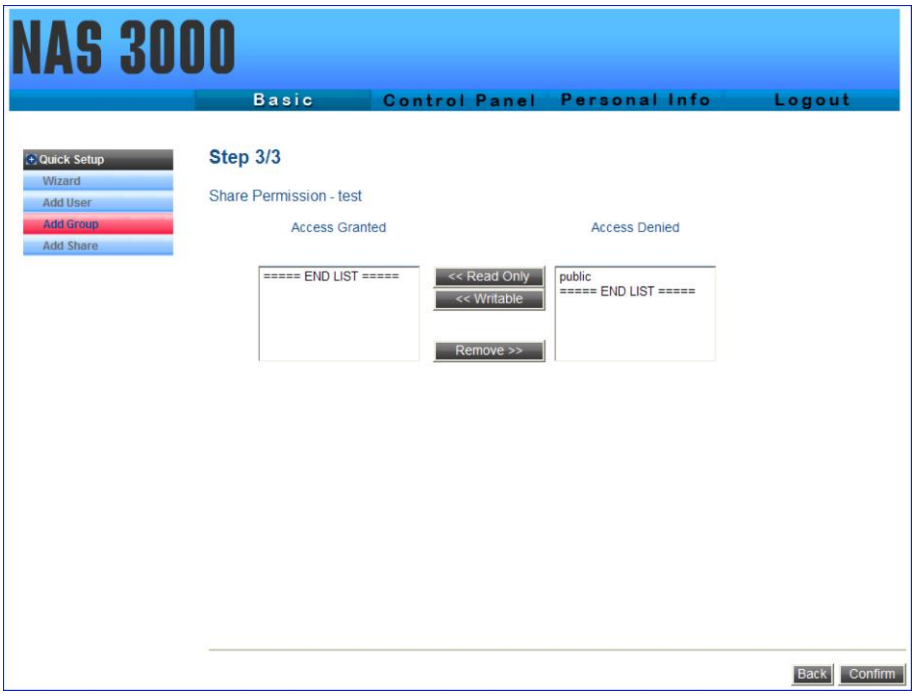
Step 1 of 3

Type in the user name and password, if “Create Private Folder (Share)” is checked, a new folder will be created for security and privacy. Also, the directory has to be specified. If not checked, the added user will only be able to access the public area.



Step 2 of 3

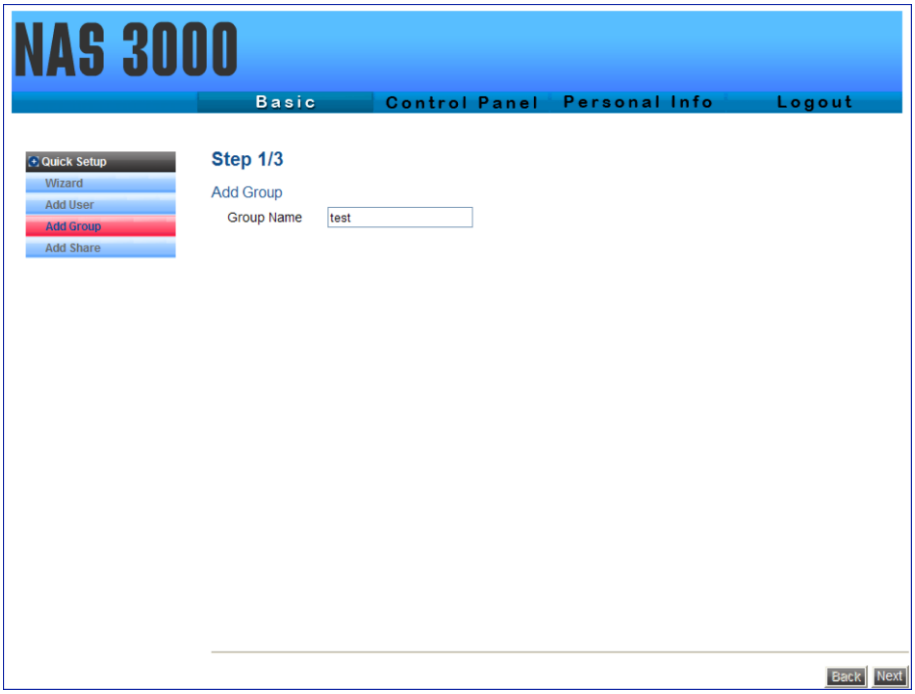
Add user to a certain group for assigning them the group access rights.



Step 3 of 3

To specify the right of permission “Read Only” or “Writable”.

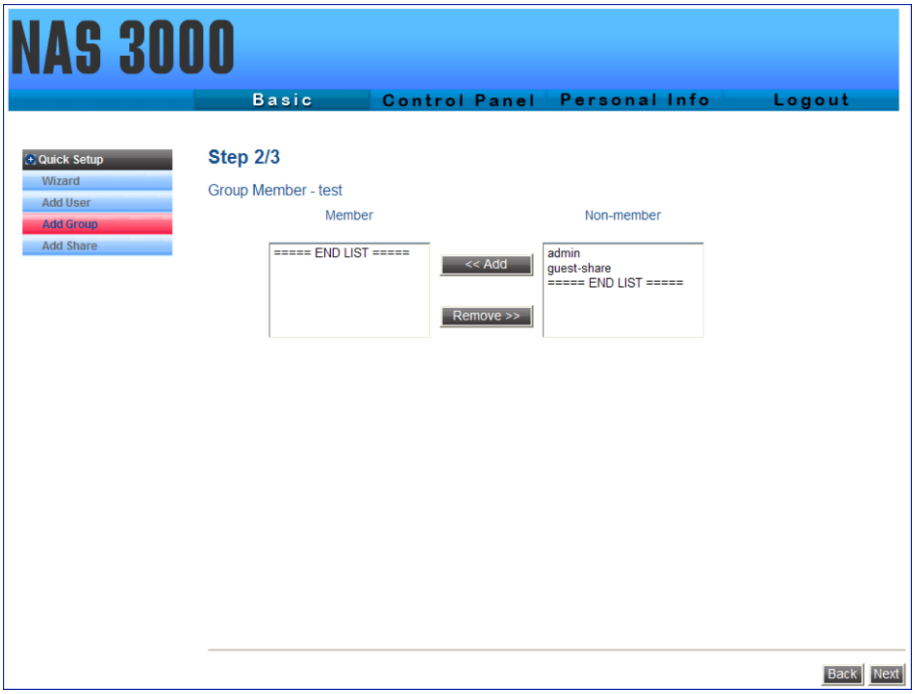
ADD GROUP



Using Groups is an easier way to manage users: the same group of users have the same rights to access device.

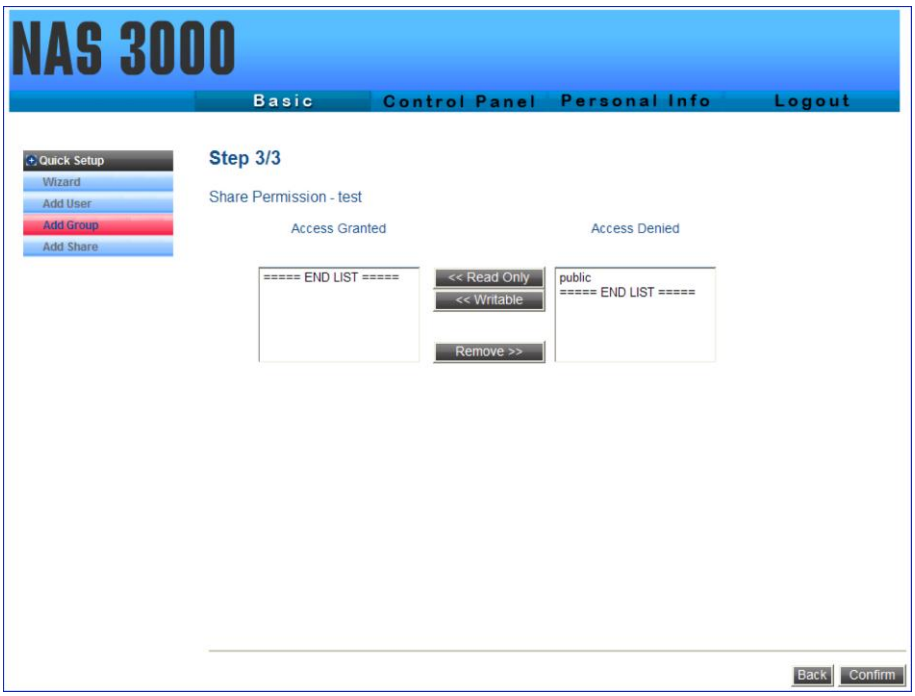
Step 1 of 3

Adding group, specify the name of the group.



Step 2 of 3

Adding group members in the group



Step 3 of 3

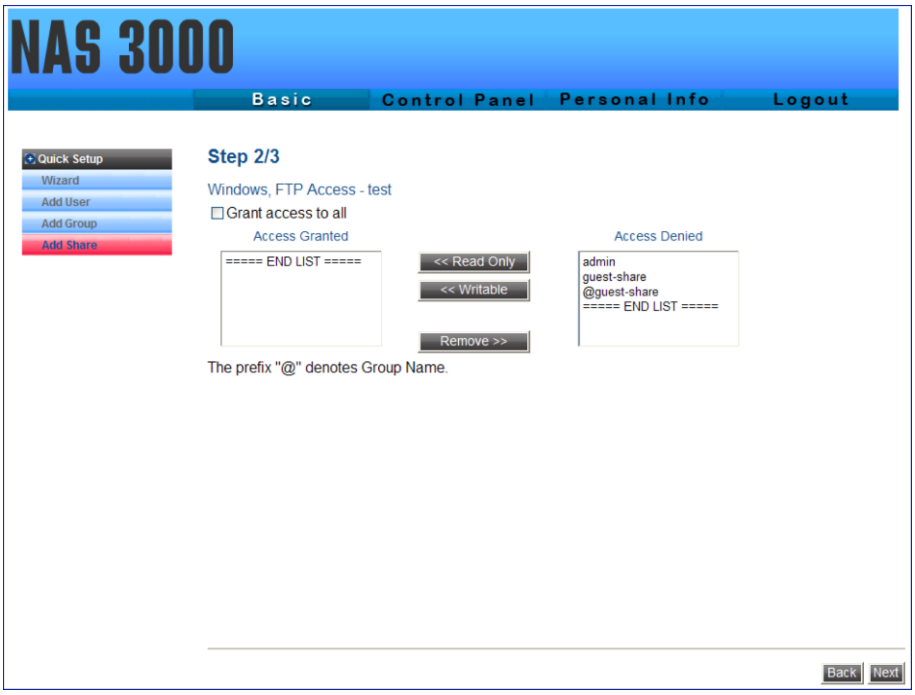
Specify the right of the group.

ADD SHARE

The Add Share setting is to set “Share” of the directory for specific users.

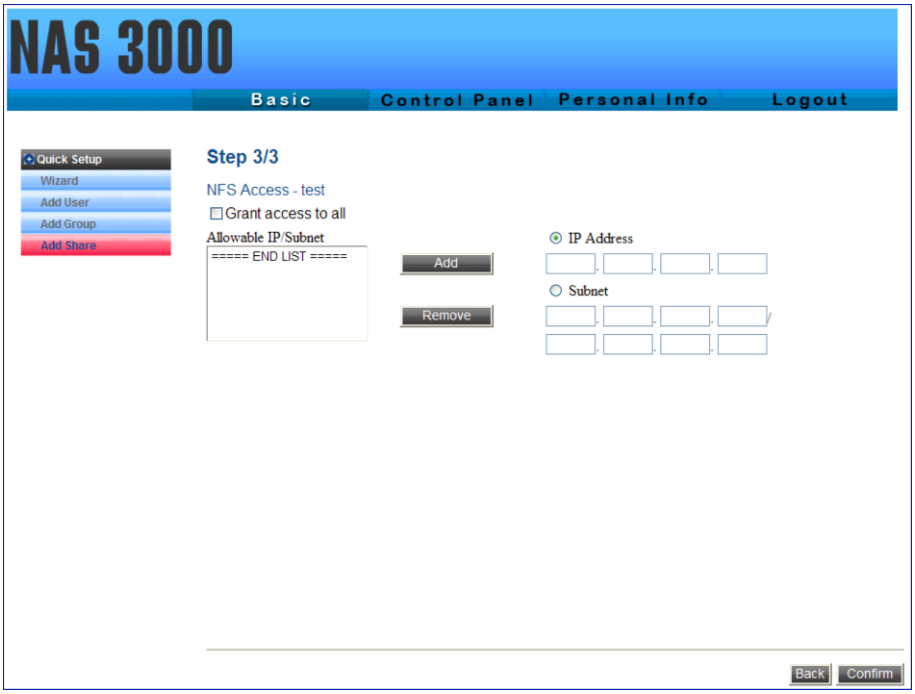
Step 1 of 3

Type the share name and path.



Step 2 of 3

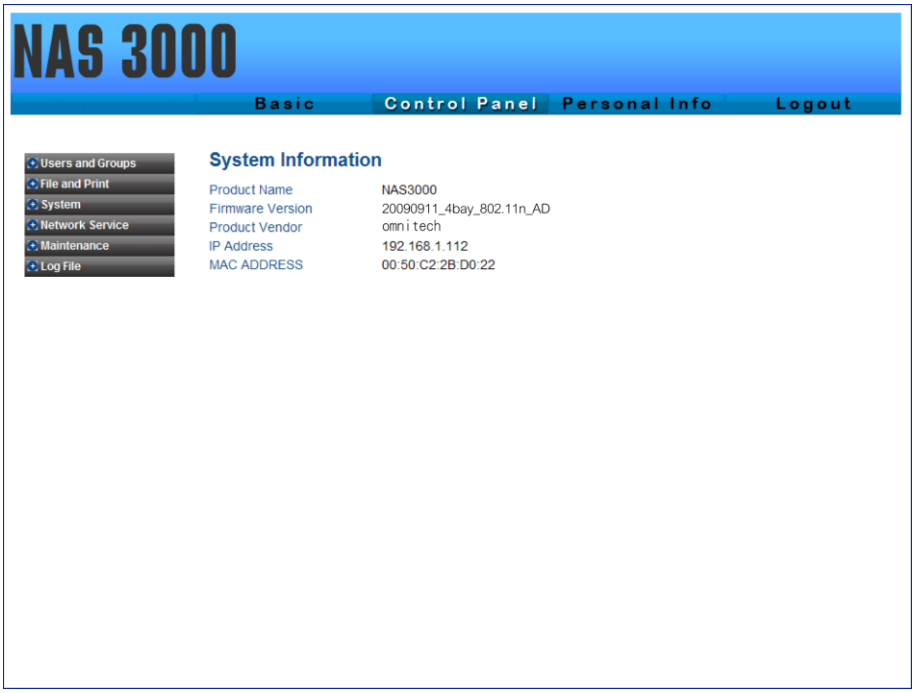
This step specifies users’ right to access this directory.



Step 3 of 3

This step specifies the IP addresses or Subnet address to access the device. If “Allow for all” is checked, there will be no restriction for all users.

USER MANAGEMENT

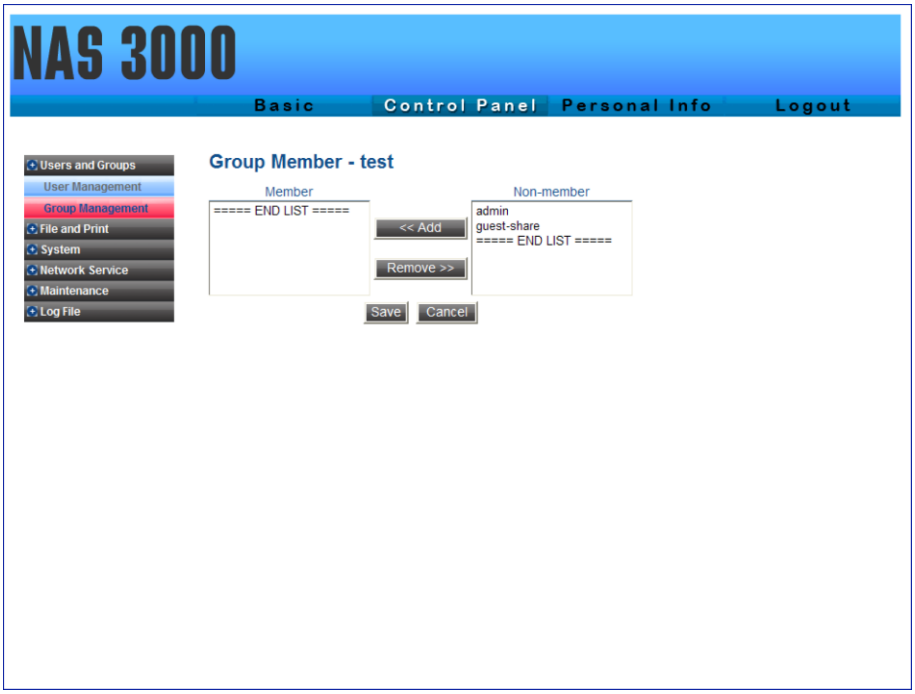


This screen shows the status of the device.

This page allows administrator to add/delete/manage users.

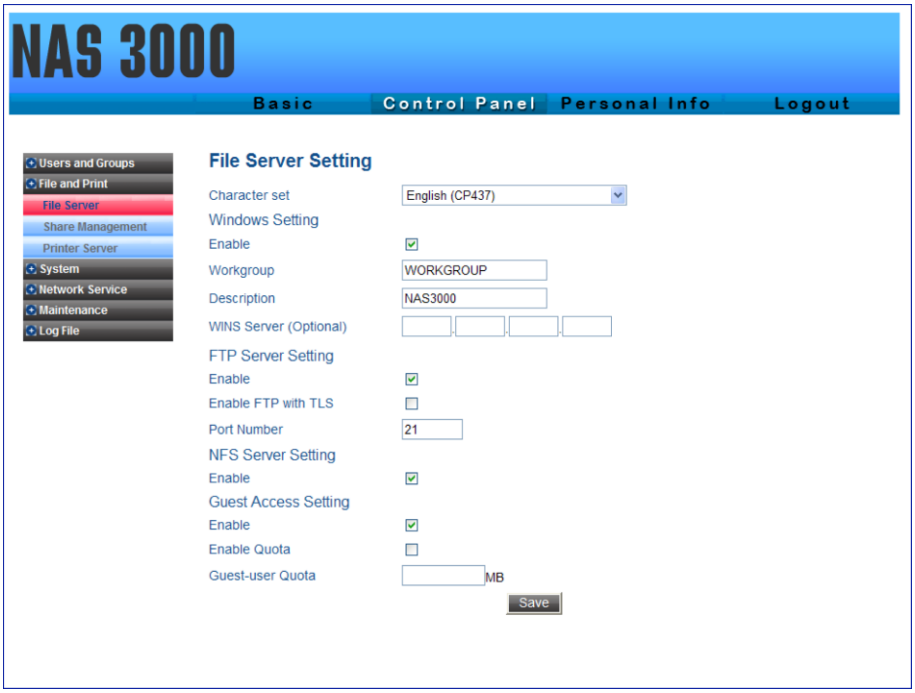
GROUP MANAGEMENT

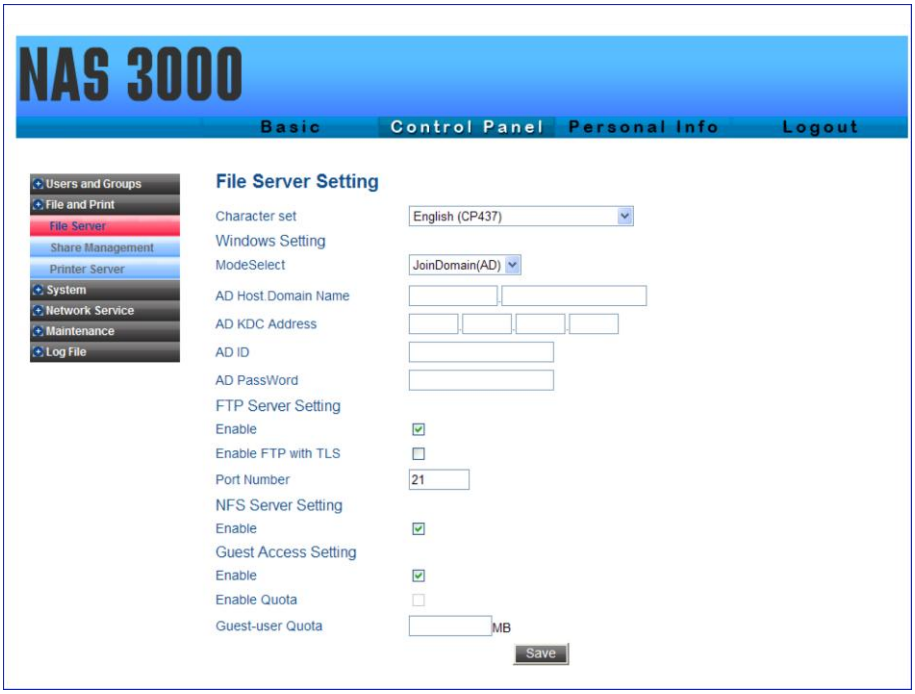
This page creates groups for simplified user management.



This page allows administrator to add/delete members in the group.

FILE SERVER

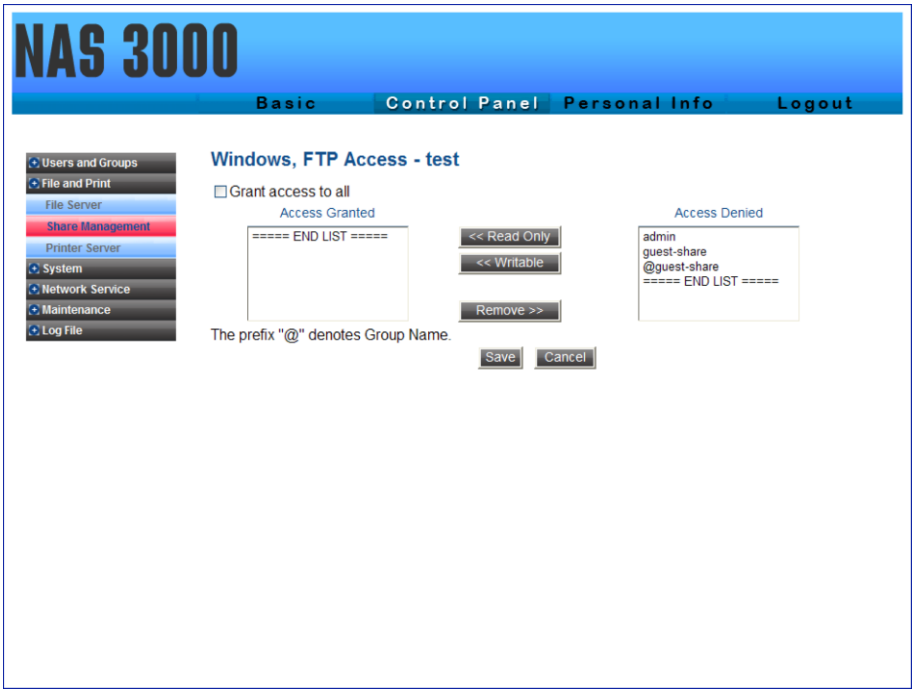




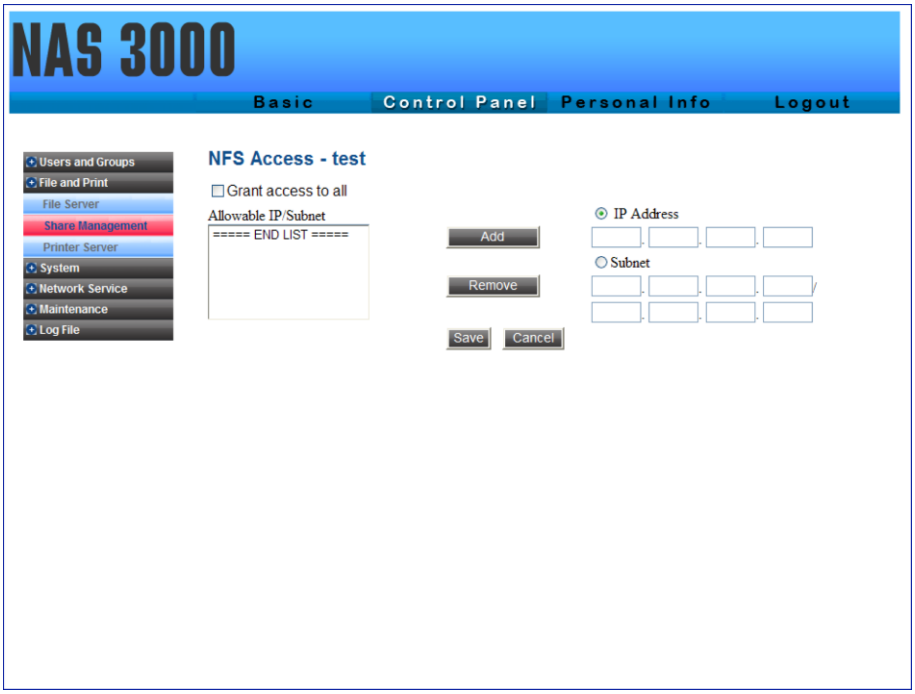
There are several options to setup servers. Unless there is a special concern, all servers are turned on by default. For the Windows Setting, please specify the Workgroup name to be compatible with Windows users.

SHARE MANAGEMENT

This page allows user to specify the share name and shared path.

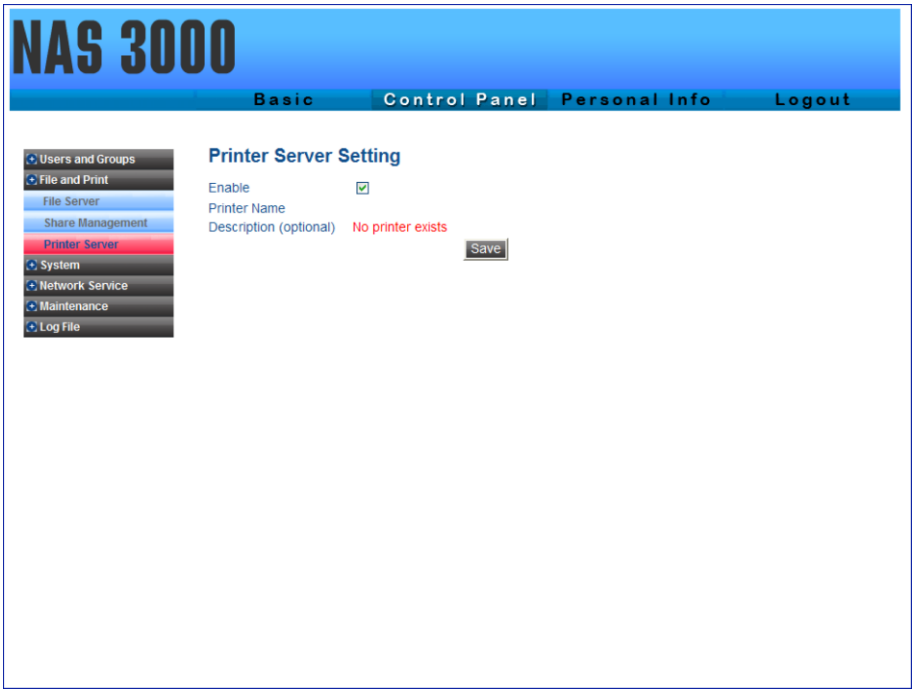


Setup sharing rights for Windows and FTP servers



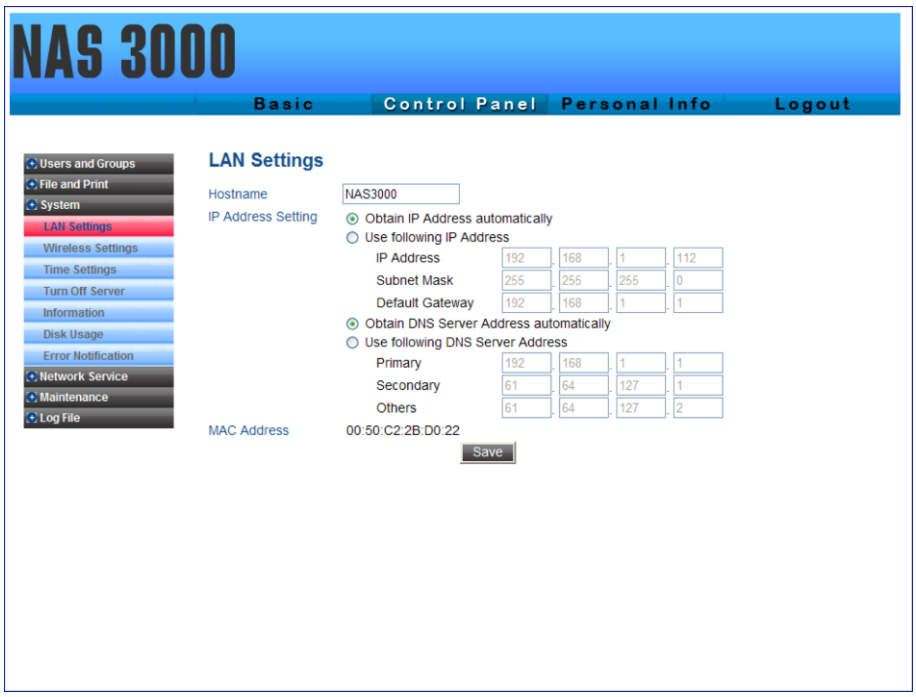
Setup sharing rights for NFS (Network File System) server

PRINTER SERVER



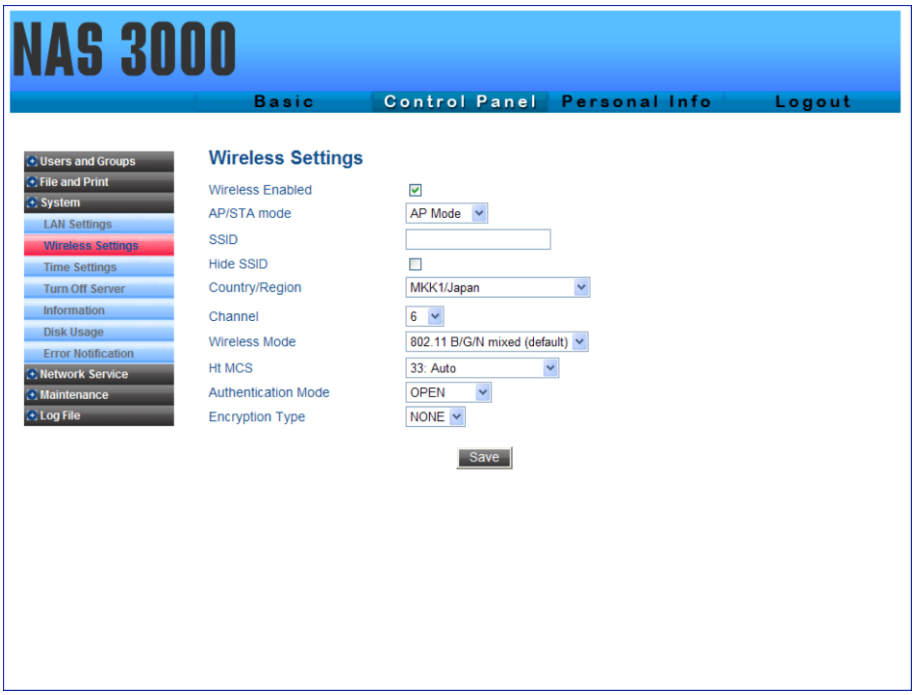
Enable/Disable printer server.

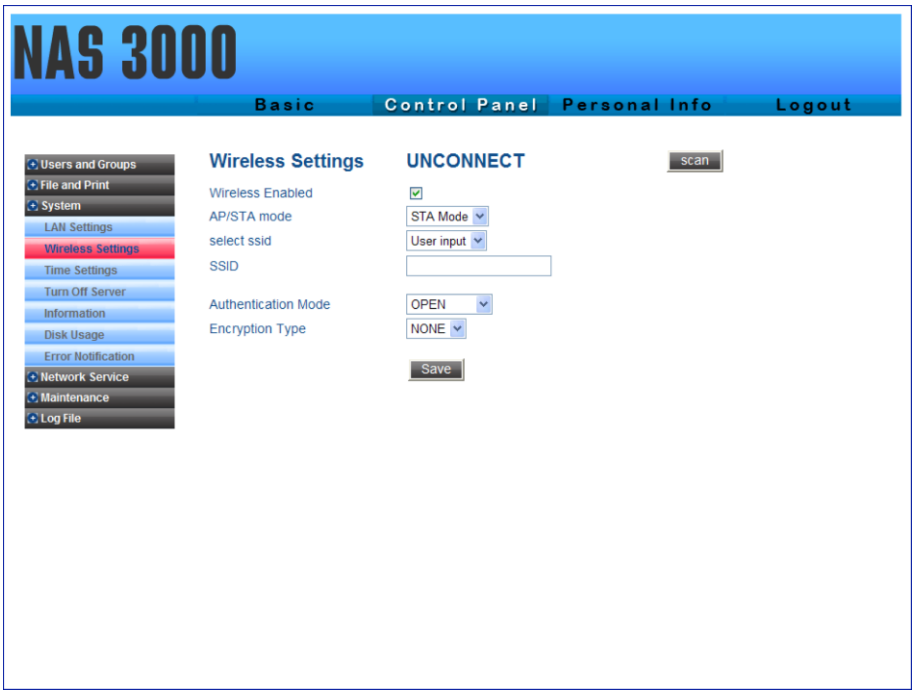
LAN SETTINGS



Setting the way this device gets the IP from, either fixed IP or from the connected network DNS server.

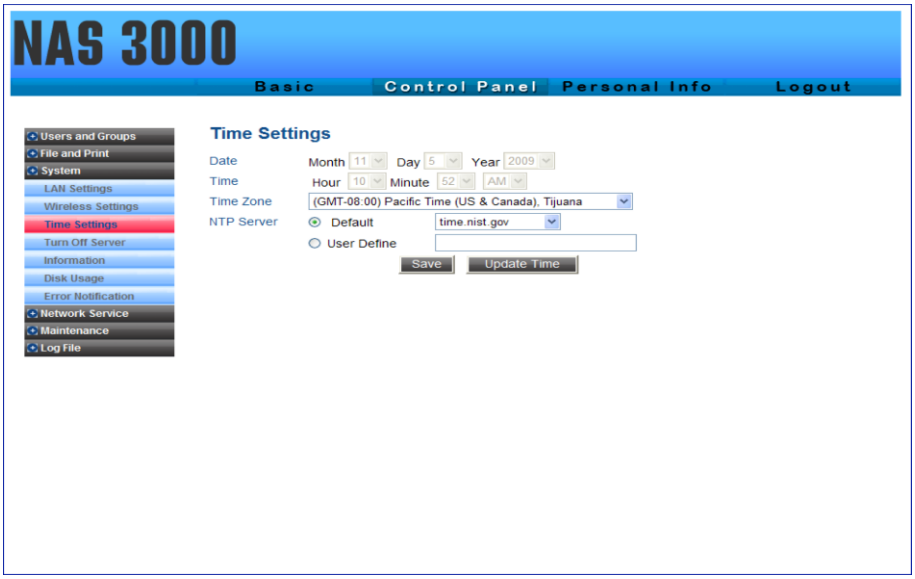
WIRELESS SETTINGS





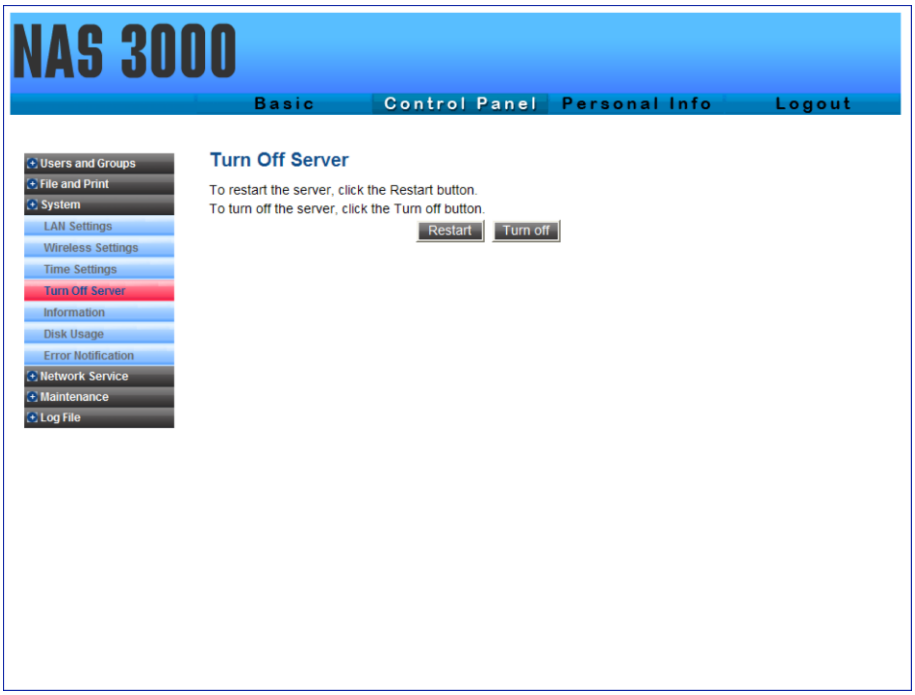
This device also works as a Wireless Access Point. For most users, SSID is the only thing you need to change. Please specify the name you would like to be seen by the Wireless clients.

TIME SETTINGS



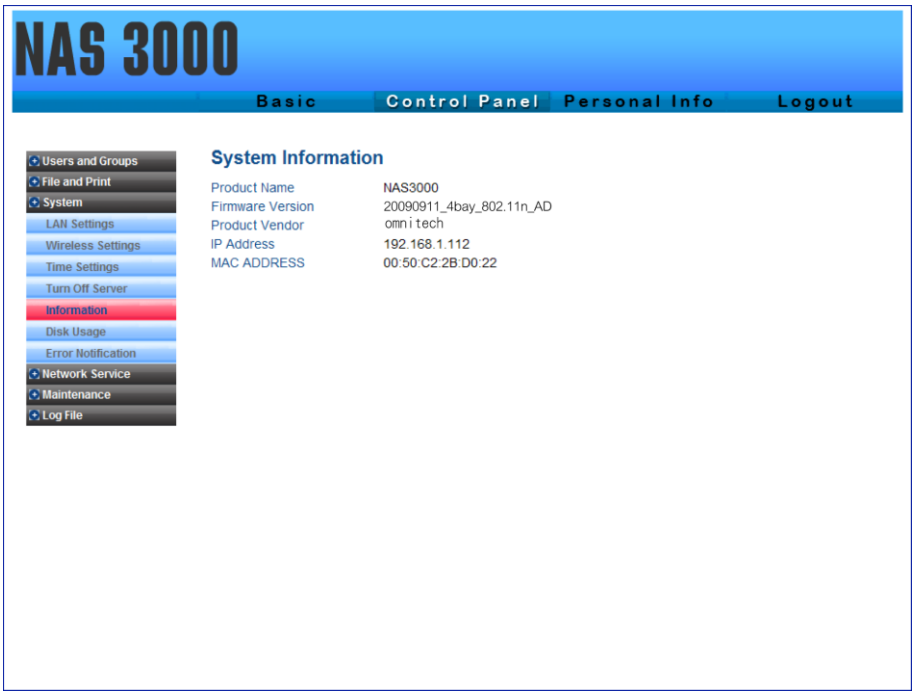
Setting up the system time, selecting the time zone you are in and the time server you wish to use so the system time will be automatically updated over the internet.

TURN OFF SERVER



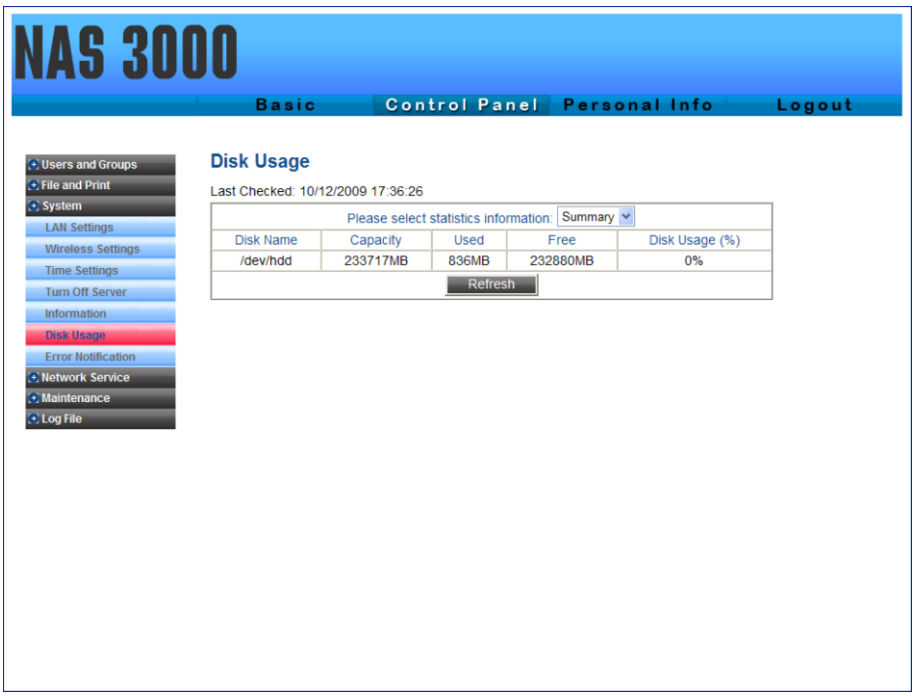
Turn off or Restart the server. This can also be done from the front power button on the NAS by holding it down for several seconds.

INFORMATION



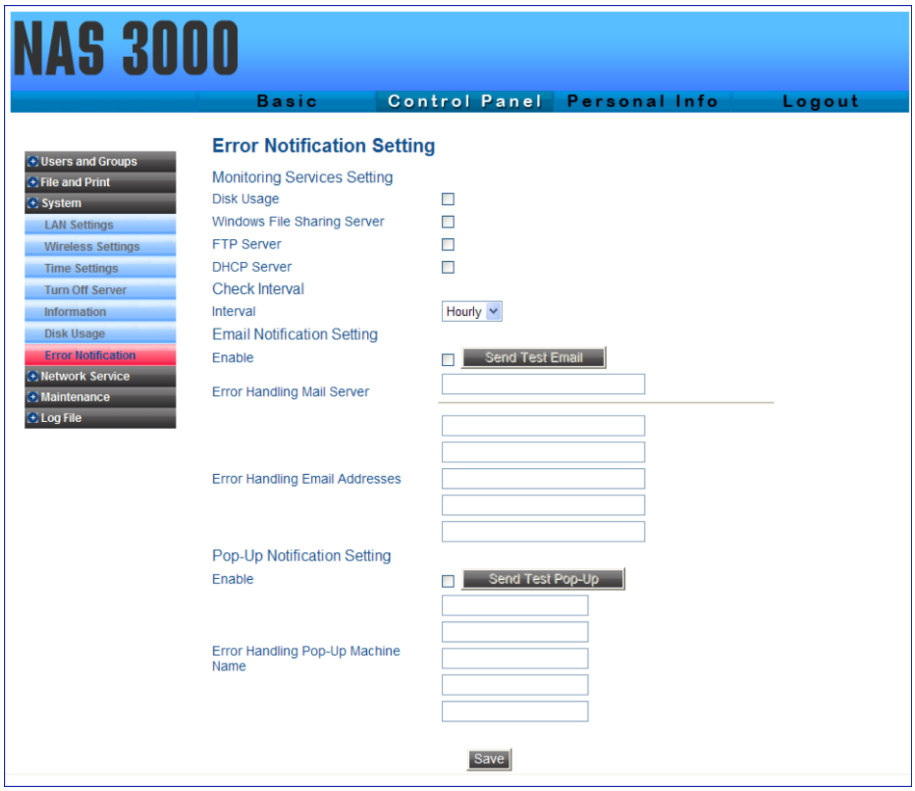
Current system information

DISK USAGE



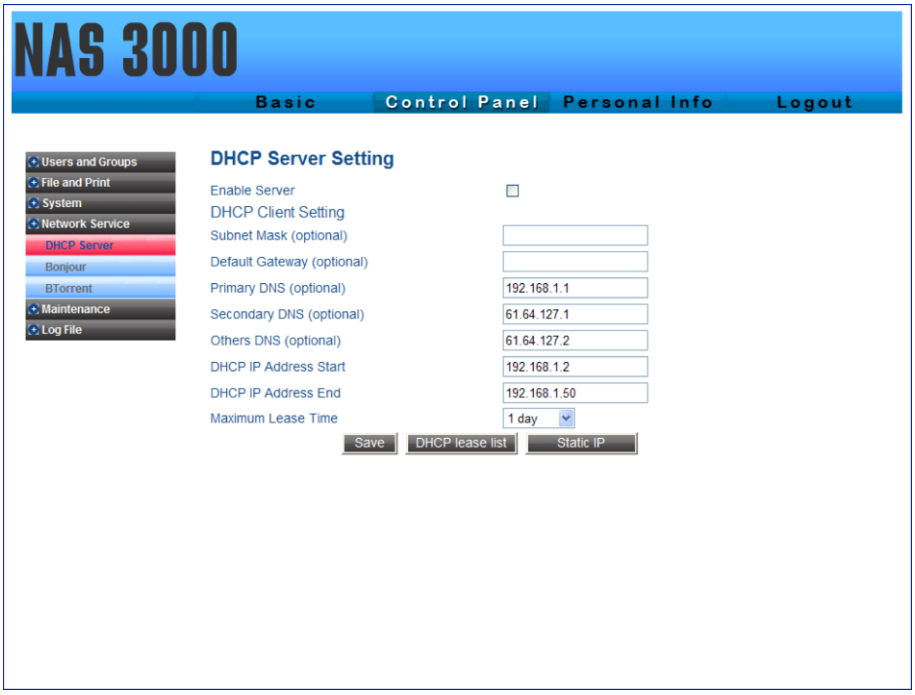
This page is to manage and/or format hard disk drives.

ERROR NOTIFICATION

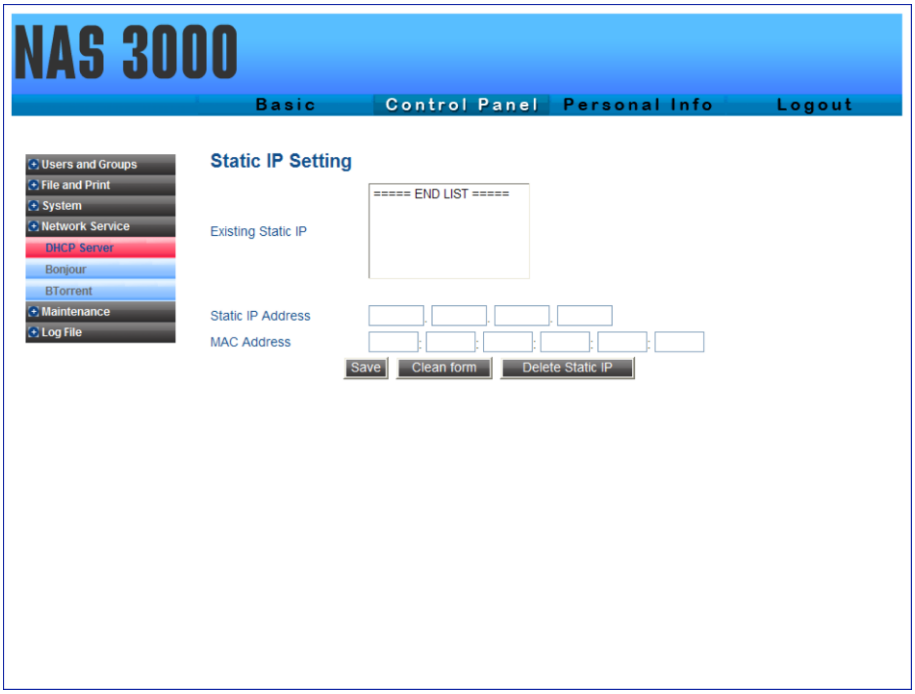


To specific when and how the administrator is notified if error happens, you can specify if you would like get an email notification.

HCP SERVER

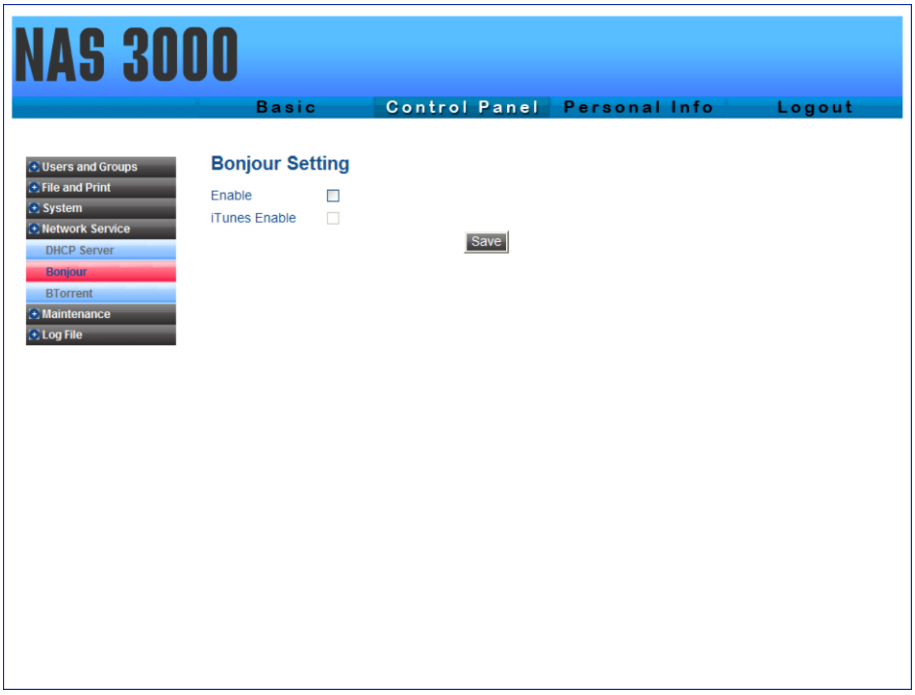


Enable/Disable DHCP server, in most applications, DHCP server should be “Disabled” in this device, since very likely you should have a DHCP server in the network already.



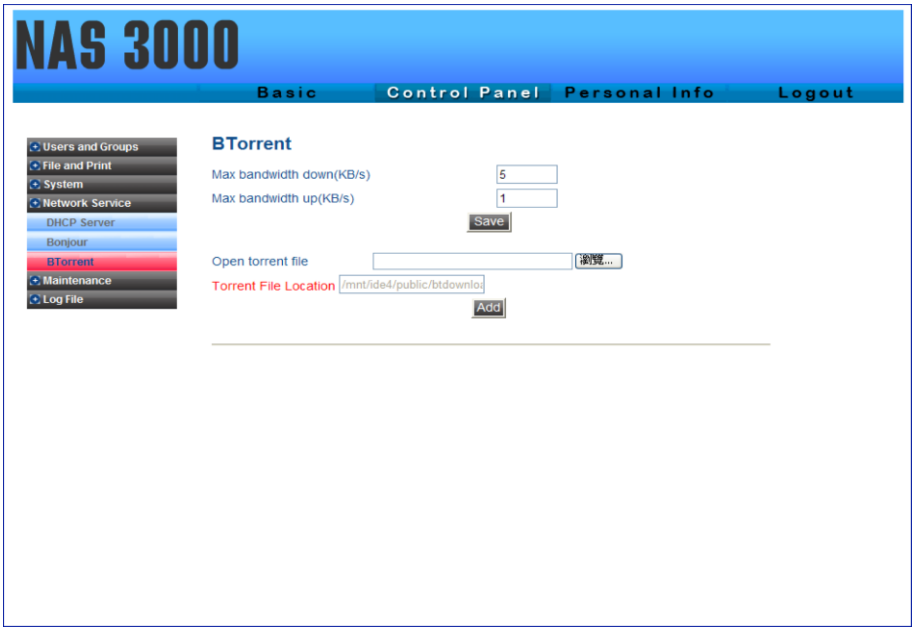
Specific the fixed IP address for the device.

BONJOUR



If you are an Apple Mac user, please enable this server for data access, otherwise, please leave it off.

BITTORRENT



BitTorrent is a peer-to-peer file sharing protocol. The system will do the download in the background if a Torrent "seed" is provided to the system. Just specify the seed location then enable the task. The download file will be stored under "public" directory.

DISK UTILITY

This screen lists all the hard disks detected by the system. You can check the disk capacity and format the disk with the file system you prefer.

File Systems

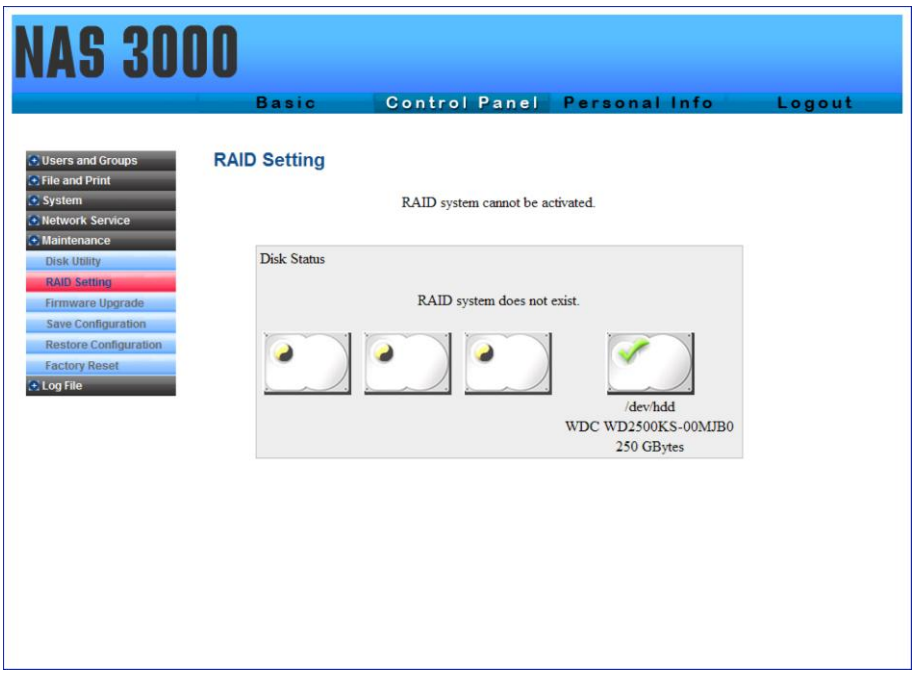
EXT2, EXT3 are Linux file systems; they have all the Linux features like data security and personal quota. But the content of the file can't be read from a Widows based system when you take the drive out of the system.

FAT32: is a file system without any security features and runs a bit slower. The only benefit is this file system can be read in a Windows based system when you take the drive out. The limitation of a FAT32 file system is the single file size cannot exceed 2GB which is not suitable for most DVD video files.

For the "Scan" button, the system will perform a file system data integrity checking to make sure the file system is OK with no errors or missing links.

SMART report of the hard drive. This tells users the health condition of the hard disk drive.

RAID SETTING



The system supports Raid modes 0, 1, 5, JBOD and Linear mode

RAID 0: doubling the capacity of whichever drive is smaller (for faster speed)
RAID 1: Mirroring: mirror the capacity of the whichever drive is smaller (for data security)
RAID 5: For systems have 3 or more drives, if one drive fails, the user data can still be recovered.

JBOD: Just a Bunch Of Disks (independent disk access)
Linear: Adding the two drives capacity together (for drive capacity)

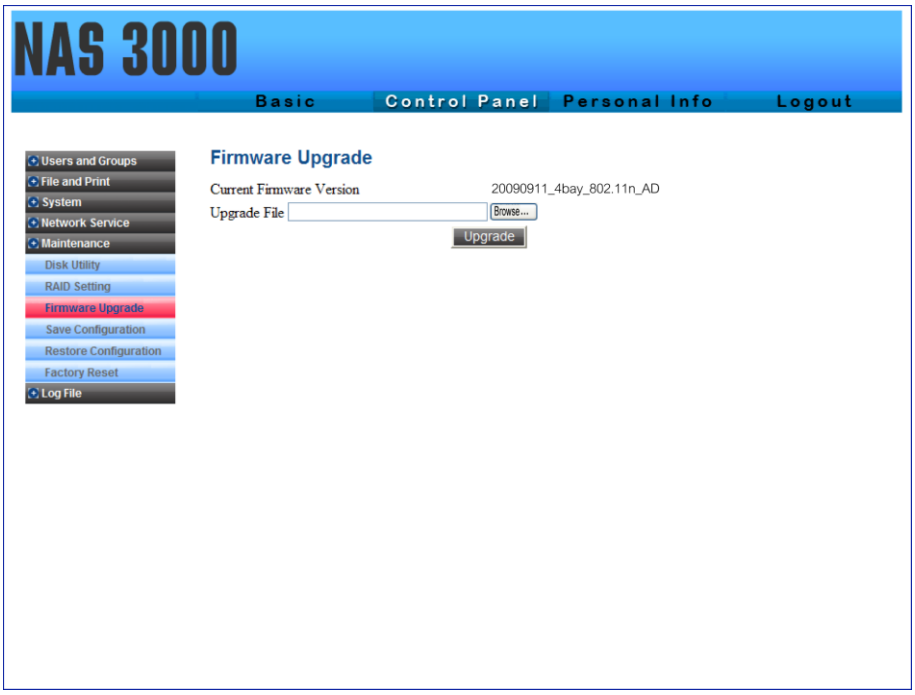
For example: if you have two drives, and one is 500GB and the other one is 750GB, you'll have
RAID 0: 500G + 500G = 1TB (the 250G is wasted)
RAID 1: 500G single drive (but if any one drive fails, your data is still intact)
JBOD: two independent 500GB and 750G drives
Linear: 500GB + 750G = 1.25TB

If you have 4 750G drives installed in the system, the overall capacity you will get is
750G * (4 – 1) = 2.25TB

If you have 4 drives installed in the system, they are 500G, 750G, 750G, 1TB, the capacity you will get is: 500G * (4 – 1) = 1.5TB

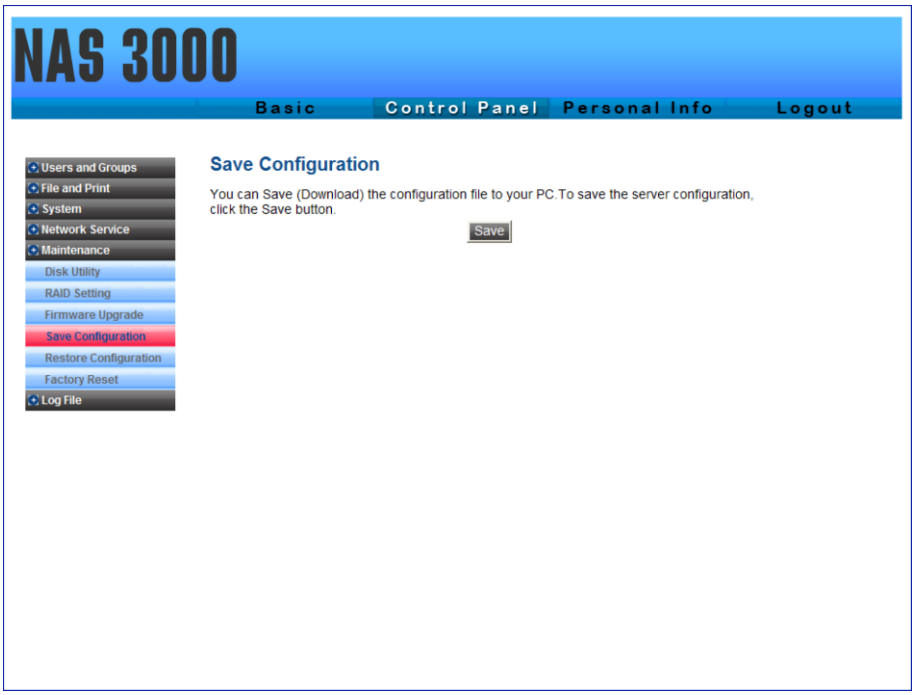
In order not to waste the storage capacity, matching all 4 drives' capacity is the best way to go.
For more information, please refer http://en.wikipedia.org/wiki/RAID

FIRMWARE UPGRADE



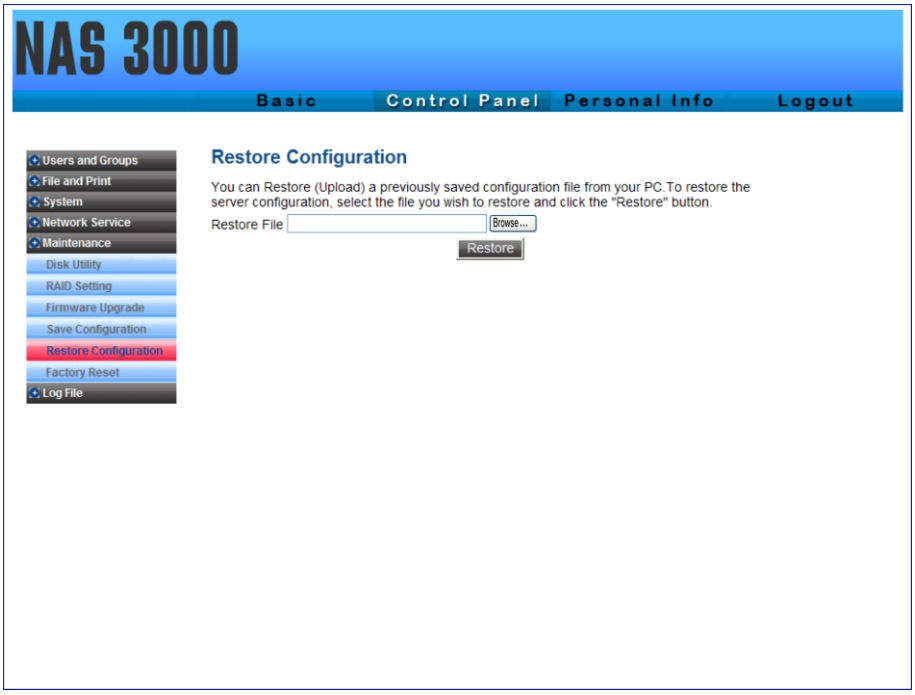
System firmware upgrade

SAVE CONFIGURATION



Save all configurations in a file.

RESTORE CONFIGURATION

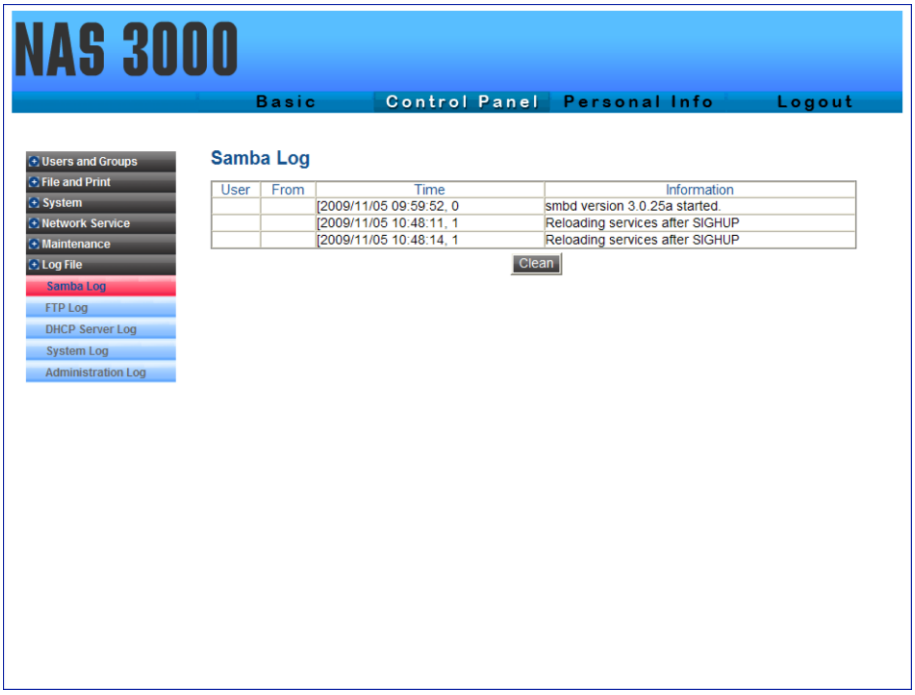


Restore all the configurations stored in the system file.

FACTORY RESET

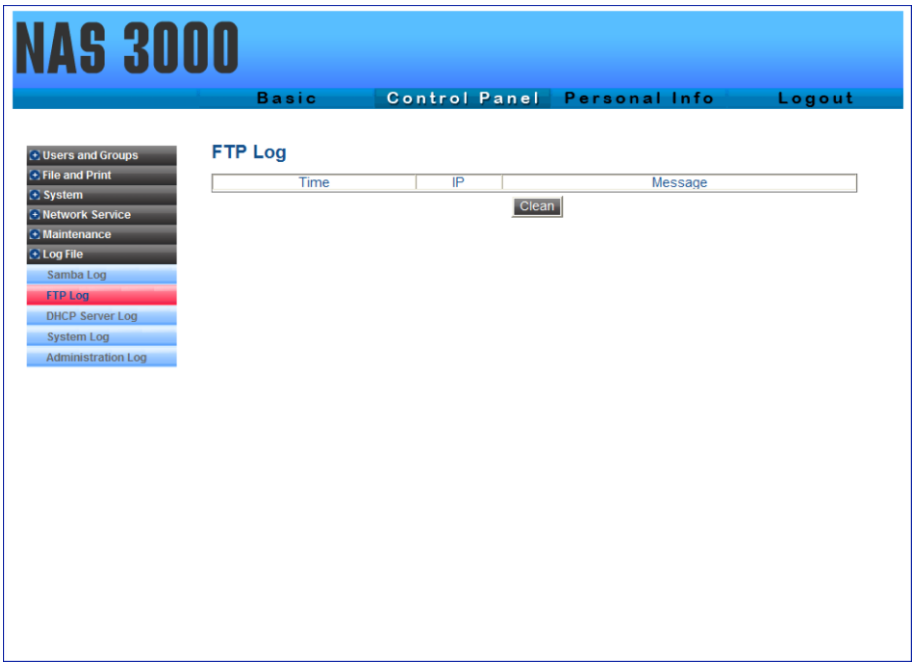
Reset all settings to the factory default

SAMBA LOG



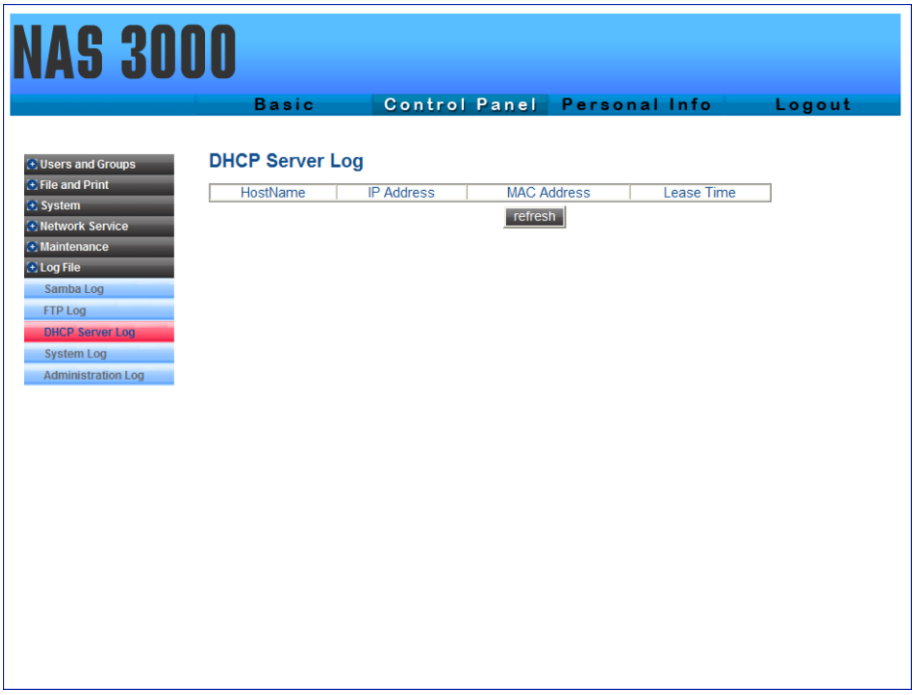
Windows server log report

FTP LOG



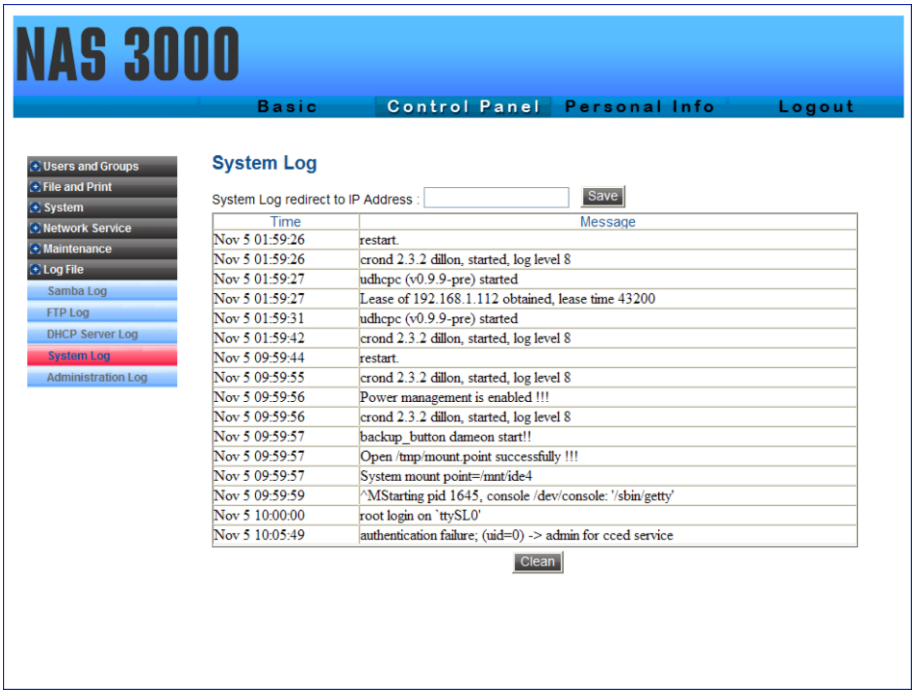
FTP server log report

DHCP SERVER LOG



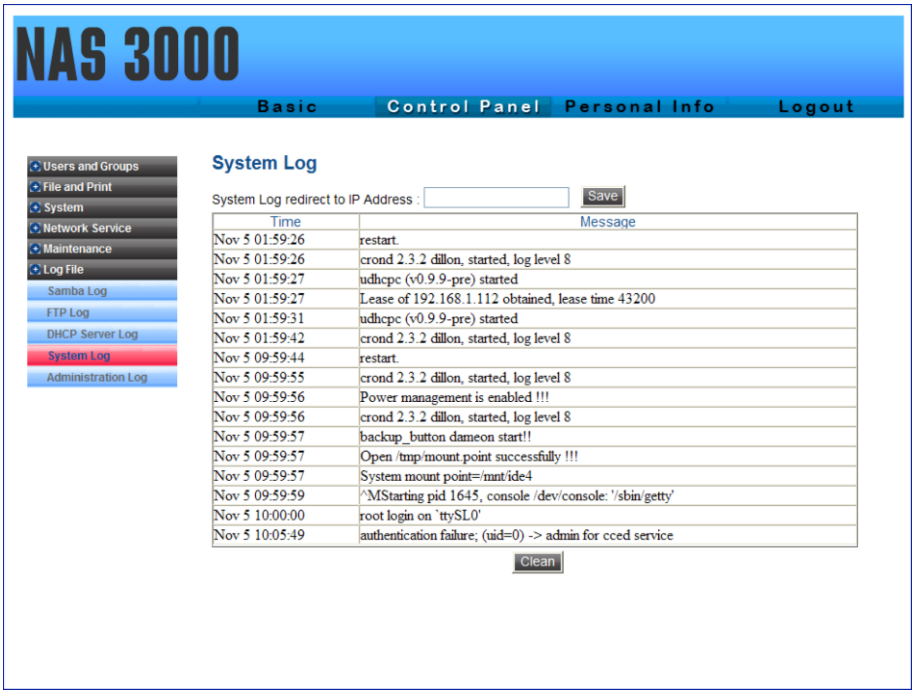
DHCP server log report

SYSTEM LOG


NAS 3000
Basic
Control Panel
Personal Info
Logout
Users and Groups
File and Print
System
Network Service
Maintenance
Log File
Samba Log
FTP Log
DHCP Server Log
System Log
Administration Log
System Log
System Log redirect to IP Address :
Save
Time
Message
Nov 5 01:59:26 restart.
Nov 5 01:59:26 crond 2.3.2 dillon, started, log level 8
Nov 5 01:59:27 udhcpc (v0.9.9-pre) started
Nov 5 01:59:27 Lease of 192.168.1.112 obtained, lease time 43200
Nov 5 01:59:31 udhcpc (v0.9.9-pre) started
Nov 5 01:59:42 crond 2.3.2 dillon, started, log level 8
Nov 5 09:59:44 restart.
Nov 5 09:59:55 crond 2.3.2 dillon, started, log level 8
Nov 5 09:59:56 Power management is enabled !!!
Nov 5 09:59:56 crond 2.3.2 dillon, started, log level 8
Nov 5 09:59:57 backup_button dameon start!!
Nov 5 09:59:57 Open /tmp/mount.point successfully !!!
Nov 5 09:59:57 System mount point=/mnt/ide4
Nov 5 09:59:59 ^MStarting pid 1645, console /dev/console: '/sbin/getty'
Nov 5 10:00:00 root login on `ttySL0'
Nov 5 10:05:49 authentication failure; (uid=0) -> admin for cced service
Clean

System log report

ADMINISTRATION LOG


NAS 3000
Basic
Control Panel
Personal Info
Logout
Users and Groups
File and Print
System
Network Service
Maintenance
Log File
Samba Log
FTP Log
DHCP Server Log
System Log
Administration Log
System Log
System Log redirect to IP Address :
Save
Time
Message
Nov 5 01:59:26 restart.
Nov 5 01:59:26 crond 2.3.2 dillon, started, log level 8
Nov 5 01:59:27 udhcpc (v0.9.9-pre) started
Nov 5 01:59:27 Lease of 192.168.1.112 obtained, lease time 43200
Nov 5 01:59:31 udhcpc (v0.9.9-pre) started
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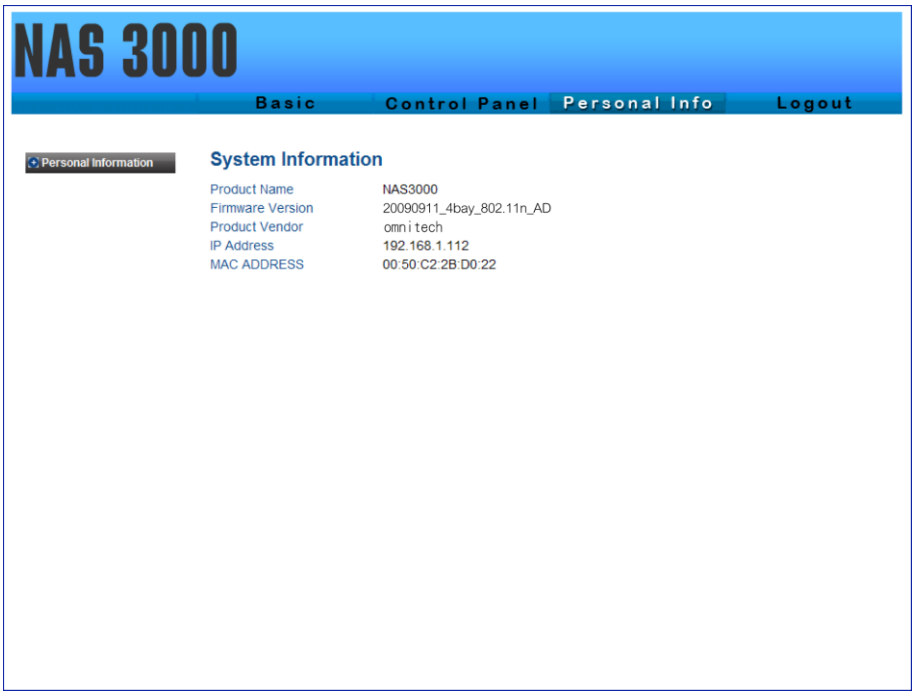
Nov 5 09:59:59 ^MStarting pid 1645, console /dev/console: '/sbin/getty'
Nov 5 10:00:00 root login on `ttySL0'
Nov 5 10:05:49 authentication failure; (uid=0) -> admin for cced service
Clean

Administration log report

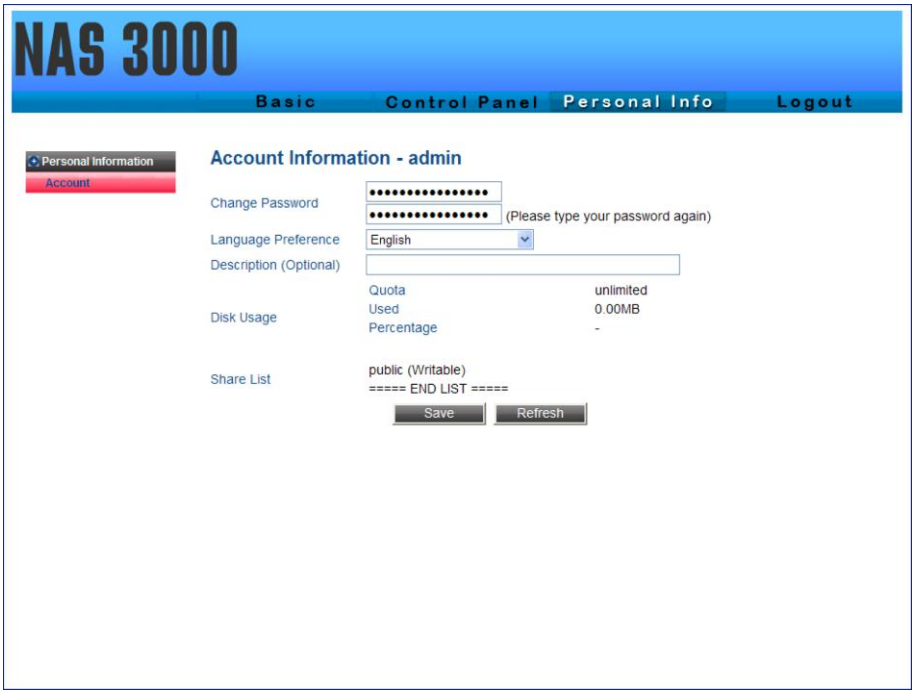
PERSONAL INFO



System status report

PERSONAL INFO - PERSONAL INFORMATION

ACCOUNT



On this page you can check your user settings and change your password and language setting if needed.

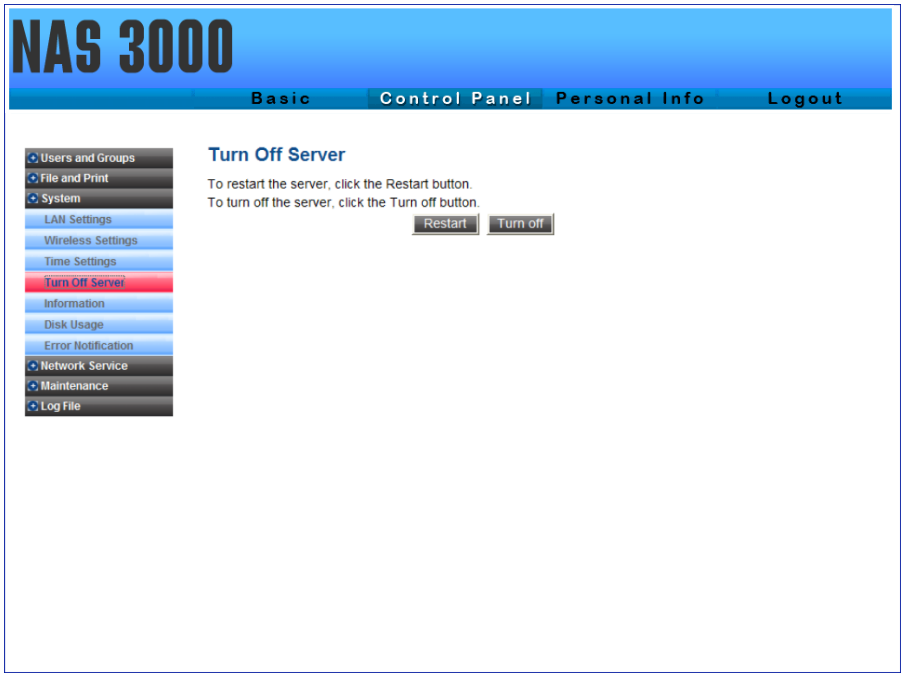
LOGOUT

To logout from the system please use the button in the upper right corner.

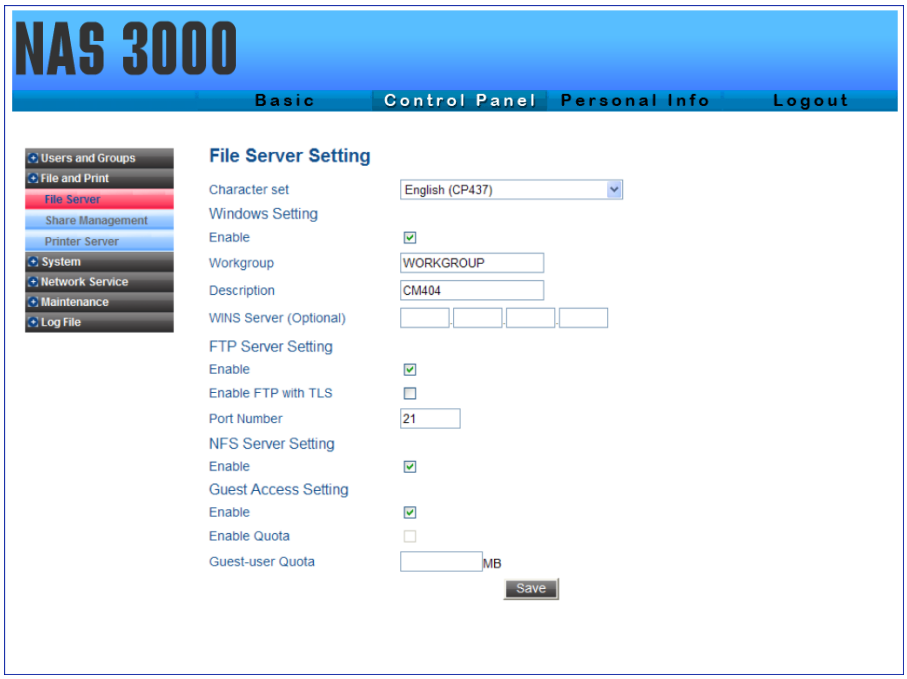
ACTIVE DIRECTORY INSTALLATION

This advanced feature is used in a network environment equipped with Microsoft Windows Server. CM404 will act as a client of the server, when this device joins the server domain, the authentication of all user access to this system will be controlled by the server. The user accounts will be managed in the server. CM404 synchronizes the users' information with the server in a designated period of time to make sure the user information is the most updated one.

To install Active Directory, please follow the steps in described in previous sections to format the drives or prepare the RAID system. Make sure the CM404 is accessible, copy the "adpacked.tgz" in the CD-ROM disk to the "public" directory of CM404. Please don't try to unpack this file, just copy it. The next step is to reboot the system by using web management page or push and hold the power switch for 3 seconds to make the installation effective.

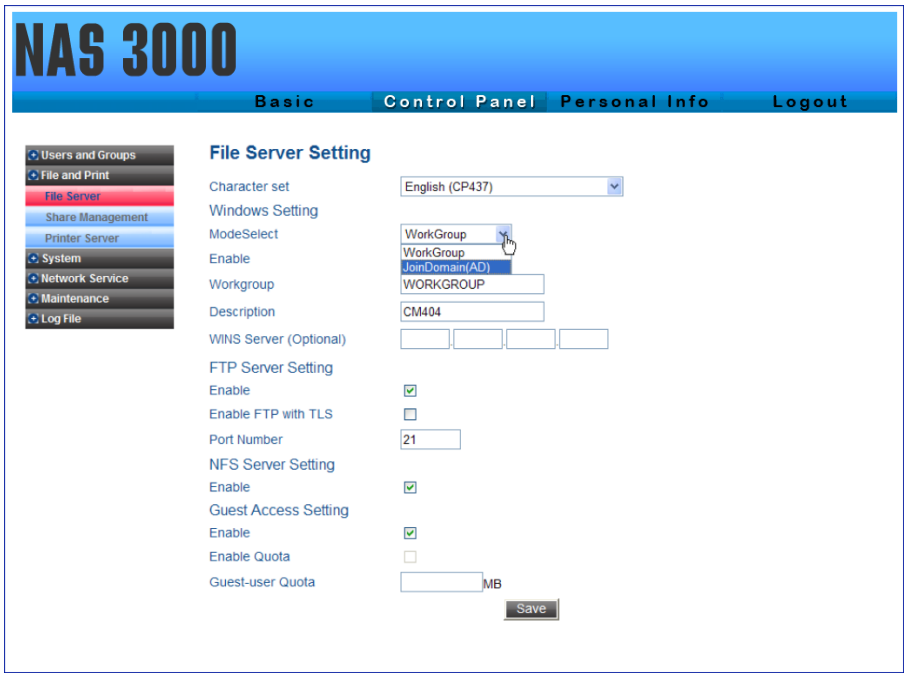


This is the setup screen “before” the Active Directory module is installed.



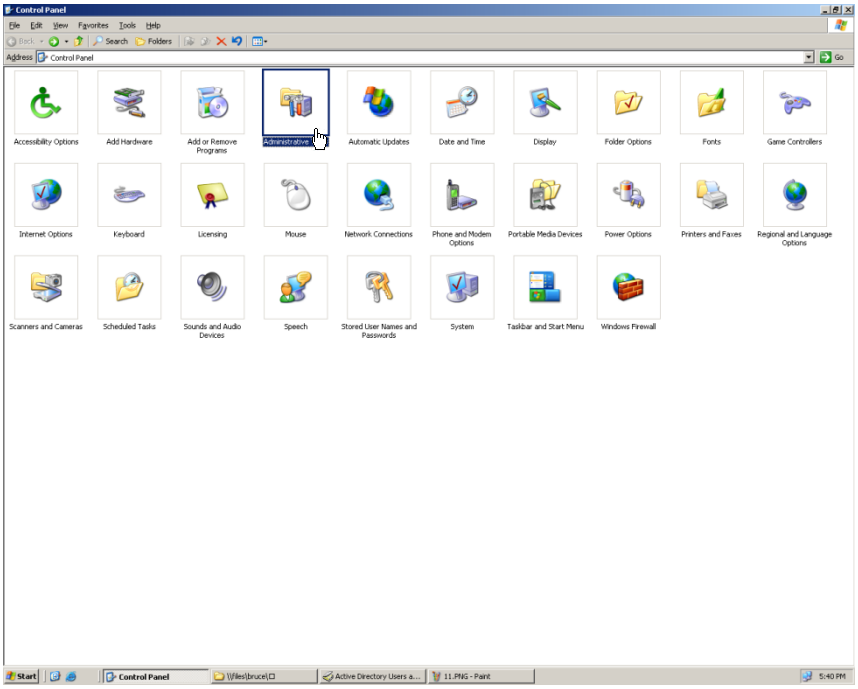
This is the setup screen “after” the Active Directory module is installed.

Under “Control Panel” click “File and Print” and select “File Server”. In the “Mode Select” item, select “Join Domain(AD)” then type in the **AD Host.DomainName, AD KDC Address, AD ID, AD password**. After you are done, just click “Save” button to save the settings.

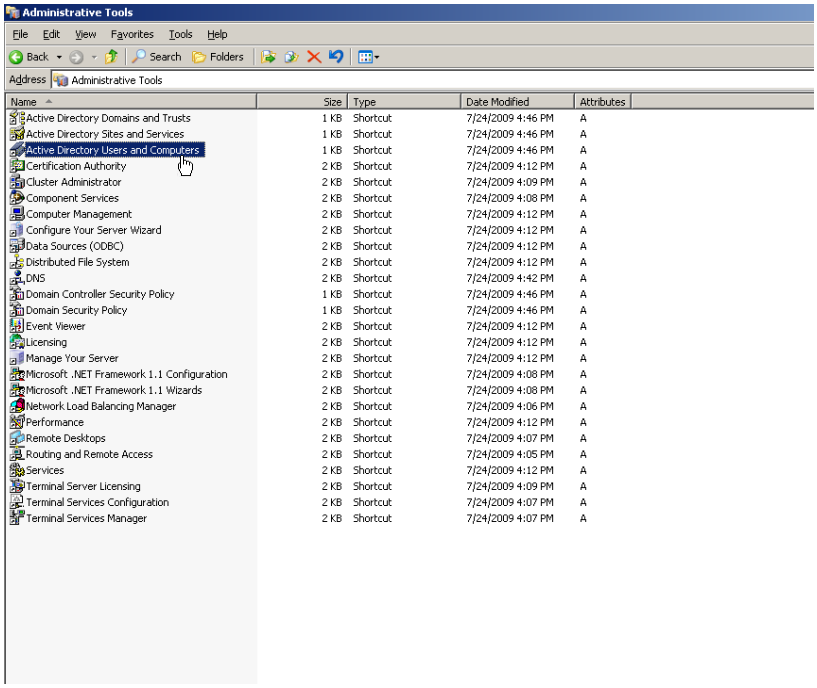


ADD USER

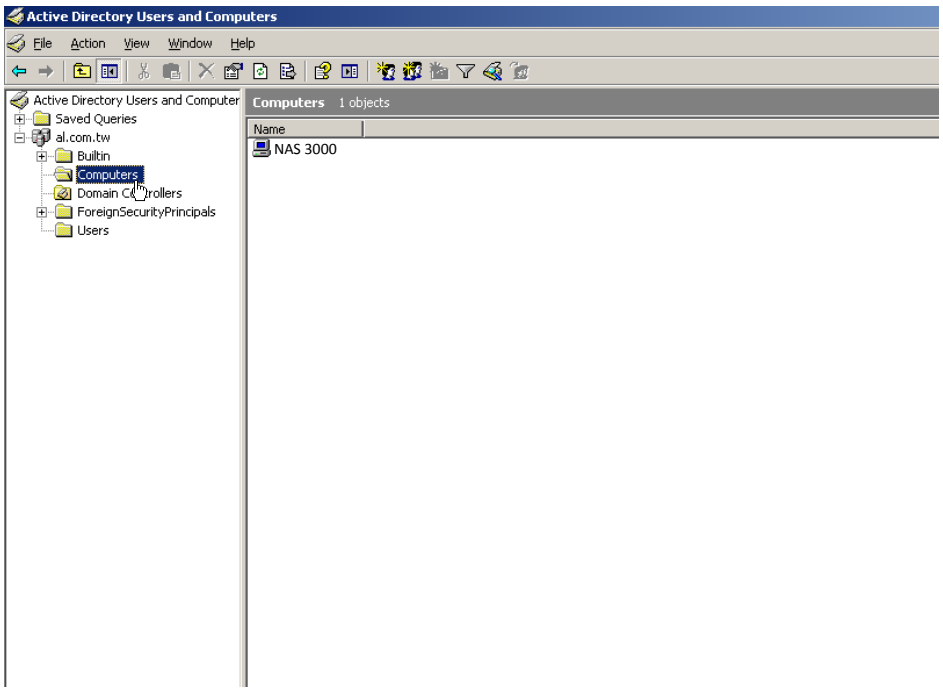
On the Server side, please go to “Control Panel” then click “Administrative Tools”



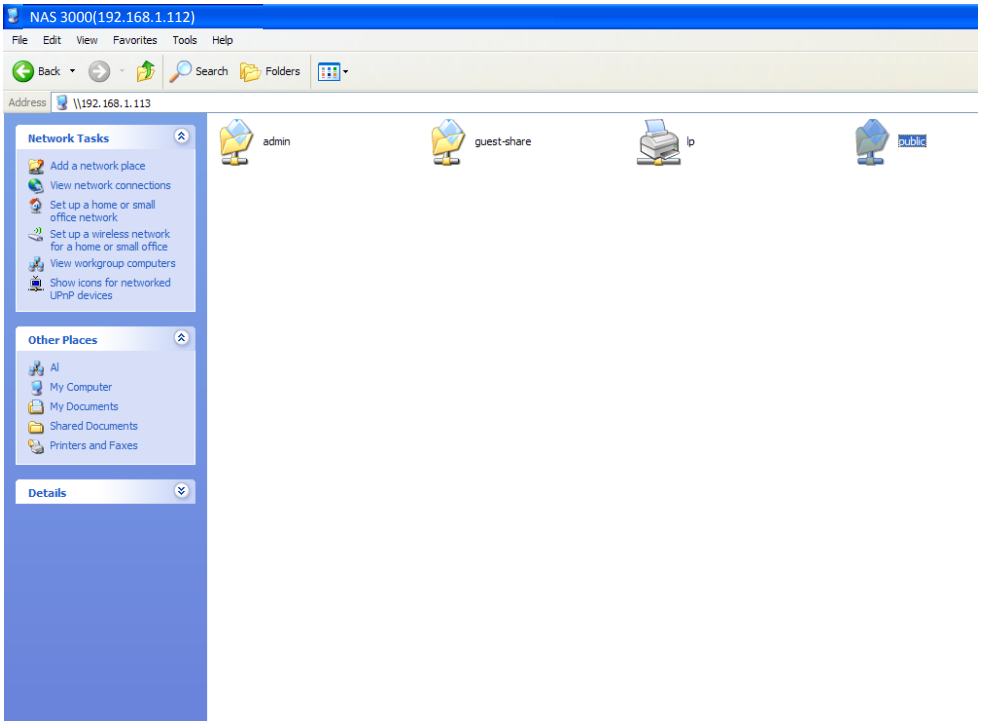
Double Click “Active Directory Users and Computers”


Administrative Tools
File Edit View Favorites Tools Help
Back Search Folders
Address Administrative Tools
Name Size Type Date Modified Attributes
Active Directory Domains and Trusts 1 KB Shortcut 7/24/2009 4:46 PM A
Active Directory Sites and Services 1 KB Shortcut 7/24/2009 4:46 PM A
Active Directory Users and Computers 1 KB Shortcut 7/24/2009 4:46 PM A
Certification Authority 2 KB Shortcut 7/24/2009 4:12 PM A
Cluster Administrator 2 KB Shortcut 7/24/2009 4:09 PM A
Component Services 2 KB Shortcut 7/24/2009 4:08 PM A
Computer Management 2 KB Shortcut 7/24/2009 4:12 PM A
Configure Your Server Wizard 2 KB Shortcut 7/24/2009 4:12 PM A
Data Sources (ODBC) 2 KB Shortcut 7/24/2009 4:12 PM A
Distributed File System 2 KB Shortcut 7/24/2009 4:12 PM A
DNS 2 KB Shortcut 7/24/2009 4:42 PM A
Domain Controller Security Policy 1 KB Shortcut 7/24/2009 4:46 PM A
Domain Security Policy 1 KB Shortcut 7/24/2009 4:46 PM A
Event Viewer 2 KB Shortcut 7/24/2009 4:12 PM A
Licensing 2 KB Shortcut 7/24/2009 4:12 PM A
Manage Your Server 2 KB Shortcut 7/24/2009 4:12 PM A
Microsoft .NET Framework 1.1 Configuration 2 KB Shortcut 7/24/2009 4:08 PM A
Microsoft .NET Framework 1.1 Wizards 2 KB Shortcut 7/24/2009 4:08 PM A
Network Load Balancing Manager 2 KB Shortcut 7/24/2009 4:06 PM A
Performance 2 KB Shortcut 7/24/2009 4:12 PM A
Remote Desktops 2 KB Shortcut 7/24/2009 4:07 PM A
Routing and Remote Access 2 KB Shortcut 7/24/2009 4:05 PM A
Services 2 KB Shortcut 7/24/2009 4:12 PM A
Terminal Server Licensing 2 KB Shortcut 7/24/2009 4:09 PM A
Terminal Services Configuration 2 KB Shortcut 7/24/2009 4:07 PM A
Terminal Services Manager 2 KB Shortcut 7/24/2009 4:07 PM A

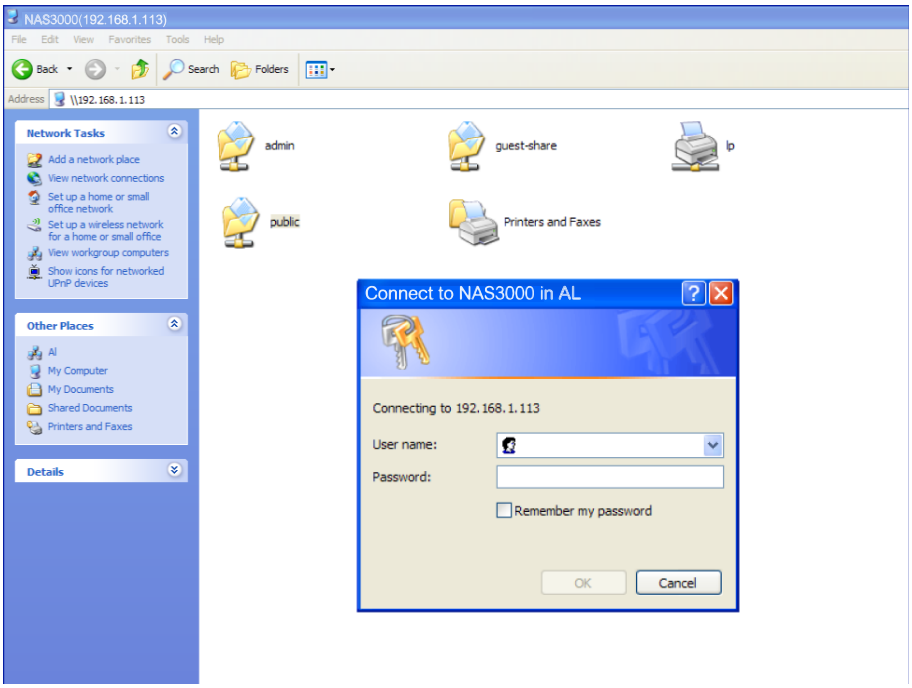
Double Click “Computers”, you should be able to see your NAS host name is present in the list. That means the you have successfully joined the NAS to the server domain. If not, please double check the information you type in the setup is correct or consult your MIS personnel.



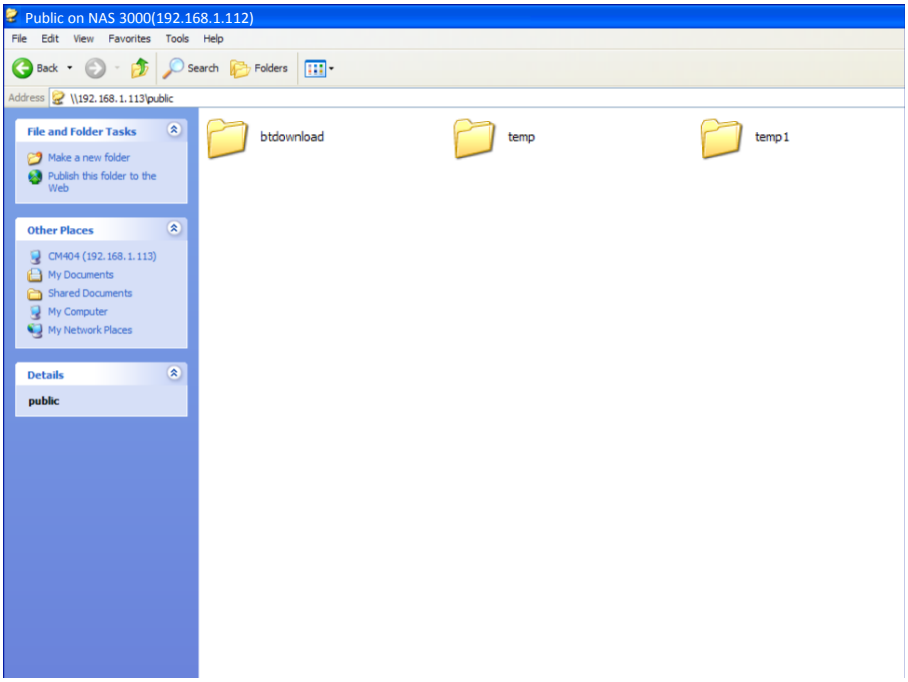
To verify the installation, please type \\192.168.XXX.XXX (this the IP address shown on the LCD display) in the Network Neighborhood. Before the installation, users should be able to access the “public” directory without any limitation. After the successful installation, if users double click the “public” directory, user will be asked for account name and password.



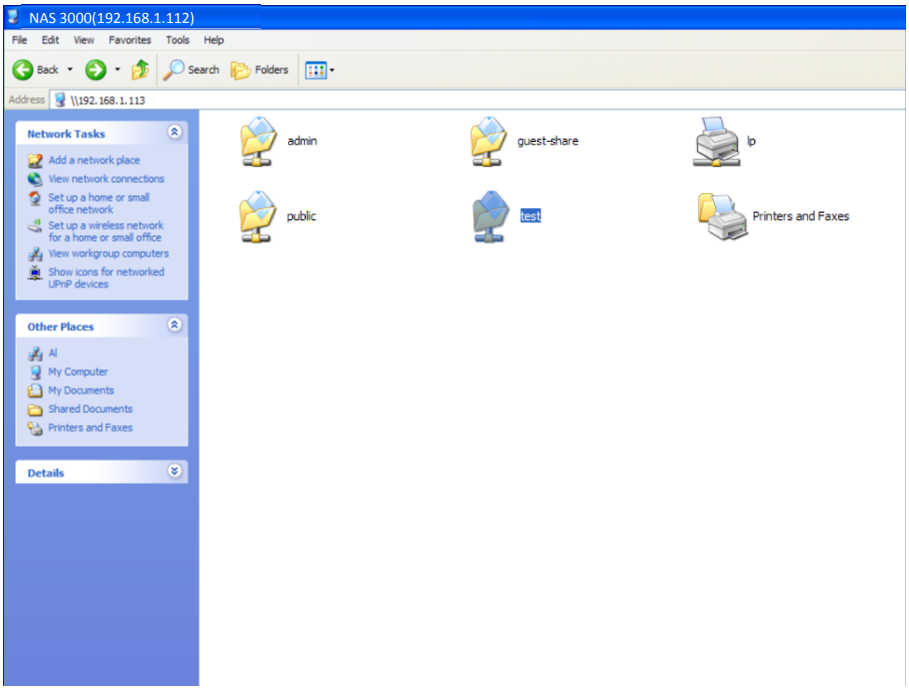
Please type in the user name and password preset in the server.



If the account name and password match the server's preset users, the access will be granted like this or the access will be denied.



If you go up a directory, users will be able to see their own private folder.



Appendix:

1. **To turn on the system power:** make sure the main power switch is turned on then touch the power switch in the front panel and the power will be turned on.
2. **To turn off the system power:** push and hold the power switch for more than 3 seconds for the system to go through the proper shut-down procedure. [WARNING] By turning off the switch on the back panel during operation, the system data integrity is not guaranteed.
3. **LCD display**: After the system boots, the LCD will stay in the IP address screen for 30 minutes, after that, the LCD will go to the system time page. By rotating the knob left or right, the LCD will change its display in the following sequence

   (1) IP and MAC Address <---> (2) System Time <---> (3) System Temperature <---> (4) Fan Speed RPM <---> (5) Drive Remaining Capacity <---> (6) System up time

4. **To operate the USB back to the system:** plug-in the USB device and wait for 15 second for the drive to mount, push and hold the backup switch for 3 seconds till the blue light is on and LCD screen will display a copying activity. The whole content on the USB device will be copied to the "public" directory with a folder name based on the starting time.
5. **To turn on-off the fan**: the fan is controlled by an internal temperature sensor. It will start to work if the system temperature is more than 45C and stop working below 40C. If user would like to turn the fan on and of manually, you just have to rotate the knob to the LCD fan speed page to push the knob to turn on or off the fan.
6. **To lock/unlock the drive door**: please use the tab comes with the system to pull up or down. When you see the red dot, the door is locked and the door handle is disabled. To unlock the door, just do it the other way.
7. **Hardware switch to restore the factory default setting**: For any reason, if user wants to restore the system setting to the default state (like forgetting the password of the system administrator), please locate a pin hole on the bottom left of the LCD display. Use a pin to poke the switch inside for 5 seconds, the setting will be restored to the factory default. Please note, the data content on the drive will not be affected by this operation.
8. **The sequence of the drives:** The drives are counted bottom-up, the bottom drive is "A" drive and the top drive is "D" drive. If you remove the drives and forget the sequence, that is not a problem, the sequence doesn't matter at all. But please don't remove the drive while the power is on, always shutdown the system before you remove the drive.